THE SCHOOL REVIEW

A JOURNAL OF SECONDARY EDUCATION

VOLUME VII
NUMBER 8

OCTOBER, 1899

WHOLE
NUMBER 68

OUTLOOK NOTES

UNSETTLED PROBLEMS OF THE SECONDARY SCHOOL

No GREATER mistake can be made than to suppose that all of the problems connected with secondary school administration have now been pretty well solved. The master of a secondary school of the seventeenth century stepping into one of our secondary schools of today would certainly not feel at home, and it is equally certain that the schoolmaster of today would be bewildered and amazed should he drop into a secondary school of the twenty-first century. It is idle to speculate what the result may be by that time, but it is not difficult to see some of the present problems now before the secondary schools. Many of these have been most intelligently and helpfully considered by the Committee of Ten, and the Committee on College Entrance Requirements, but the ideals and programs of these two committees, in so far as they have received, or are receiving intellectual approval, are far from being as yet embodied in the actual work of the schools. What we know that is right, that we must seek to realize. Then, the preparation of teachers for secondary schools is a matter upon which the National Educational Association might well appoint another committee. The editor of the London *Educational Review* recently invited a school man in this country to prepare for him an article on the Training of Secondary Teachers in the United States, saying that as this was a question which

they were beginning to consider in England, he should be glad to assist the discussion there by publishing an account of what had been accomplished in this country. The person addressed has not yet written the article, and if any one who reads this note feels like undertaking the task, the commission will be gladly transferred. The System of Training of Secondary Teachers in Vogue in the United States—what a theme for the imagination, and *what* a theme for honest description! In the June SCHOOL REVIEW there was published the report of a committee appointed to inquire into the methods of certificating college graduates in the different states of the Union. Less than half the states, according to this investigation, make any provision whatever for the certificating of college and university graduates as teachers. This is certainly unjust to those graduates, and is often unjust to the secondary schools who seek their services in their higher positions.

We shall have to reckon from now on too with the whole question of commercial high schools which introduces a factor that will prove of growing importance into our field of secondary education; that is, unless we shall come to the undemocratic and un-American decision to divorce commercial education entirely from other fields of education, making it a thing apart. This will hardly be, for our universities have already decided against such a plan, the scope of the American university being large enough to include all human interests. Again, the whole subject of school hygiene must be worked over from the point of view of the secondary schools. There is no more reason why work should be carried on under unhygienic conditions in the high school and in the academy than in the kindergarten. The differentiation into different lines of preparation for different fields of activity in life, falls to a very large extent, upon the secondary school. Here those studies of the individual characteristics of pupils, which form a branch of child-study, assume the greatest importance and significance. Yet, they as yet receive very scant attention in secondary schools.

The courses of study are to have increased consideration, and among the several courses of study the one at present in

the most chaotic condition is the course in English. This course presents peculiar problems, most of which spring from the fact that English is a subject which the pupil already supposes he knows. How to teach what the pupil already knows is a harder problem even than how to teach what the teacher already does not know. It is quite possible that some maxims of quite universal acceptance are thoroughly wrong; for example, most of our high schools have practically a single session with a short intermission for lunch, and it has even been proposed to abolish this. If the studies made by scientists on fatigue and the conclusions of school hygiene in general show one thing clearly, it is that what is needed is longer, and not shorter, more frequent rather than less frequent intermissions. If we are now sacrificing the interests of the pupils' health to anyone's convenience, doubtless the time will come when we shall sacrifice the pupils' health for no one. Now very much reliance is placed upon home study. Fifty years from now it may be safely predicted that there will be no such thing. Have we solved the problem yet as to the use of libraries in secondary schools? Have we fully realized the fact that to teach pupils the art of reading, without at the same time providing an abundance of good reading, and compelling them to choose the good rather than the evil, may be quite as bad, if not worse, than leaving them in total ignorance of the art of reading? There have been many great and good men in the history of the world who could not read, and perhaps could not write even more than a single letter to stand for their names, and there have been very many villains who could read as well as you or I.

Then, too, there has been a good deal of talk about correlation of work in the schools, and in some places this came to more than talk, chiefly in the elementary schools, however. In the rage for specialization there is danger of our losing hold of the fact that there is such a thing as a synthesis of knowledge; that after all, the world is one. If the student does not get this idea as a result of his secondary course, he misses a large part of the value of that course. The suggestion has been made that the function of synthesizing should belong to the teacher of

English, that there all the branches of school instruction may be best correlated and the conception of the unity of knowledge best developed. Perhaps this is true, but in how many places has the experiment been tried? After all, there is much virtue in the notion of a "professor of things in general." The ethical value of the conception of knowledge as a unity, of the world of literature, science, art, politics, as a whole is something we cannot spare from the results of our school training.

This by no means exhausts the catalogue of duties next at hand in the secondary schools, but only suggests a few of them. There is enough to be done, then, so that the eager and ambitious need not turn aside from the field of secondary work because it offers no attractions in the way of opportunities for the exercise of constructive powers.

C. H. THURBER

THE ARTICULATION OF SCHOOL AND COLLEGE WORK IN THE SCIENCES[1]

II

SCHOOL SCIENCE *in posse*

It is not difficult to enumerate some of the principles which should be kept in view in trying to render school courses in science more uniform. Those mentioned below are selected almost entirely on account of the benefit they would confer on the school. It would be a mistake to distort the natural work of the high school so as to fit it to the college course. The obligation lies on the other side. It should be added that no originality is claimed for these suggestions. They all arise from study of schools where the sciences are successfully taught.

1. All courses in the fundamental sciences — physics, chemistry, botany, and zoölogy — on the basis of which advancement in college is to be claimed, should include an adequate proportion of laboratory or field work by the pupils.

Introductory general science work, such as that given in the first year of the Chicago high schools to large classes of school freshmen, where admission credit is to be claimed but no advancement in college is expected, may possibly dispense with laboratory and field work, if limited accommodation and limited teaching force render this unavoidable. It would be of immense advantage to the pupils, however, in consideration of the start this would give them in the methods of thought and work in science, if no exception were made even here. Such work is possible, as has been shown in the Cleveland High School, the Lewis Institute, and elsewhere, and the expense is no valid objection if the necessity is proved.

2. The courses in each science should be not less than one year in length and should be of the same weight as courses in

[1] Expanded from a report presented to the N. E. A. in July 1898 (Report for 1898, p. 964), and a paper read before a joint meeting of the high school and college section of the Illinois Teachers' Association in December 1898.

other subjects. In view of the fact that home preparation is not required for laboratory work, double periods of time should be assigned to it. Thus, if the ordinary courses occupy four to five periods a week, the courses in science should comprise not less than two periods in the class room and four periods in the laboratory.

3. Each school should offer four complete years of work in science, although all of this will not be required of every graduate. If the resources of the school do not enable it to offer so much work in the sciences, while maintaining the highest quality in each course, a selection from among the sciences should be made and full, first-class courses in the sciences selected should be given. Economy should not be attempted at the expense of the quality of the work, nor should shorter or lighter courses in a larger number of sciences be preferred.

4. No science teacher should be asked to teach more than two or at most three sciences. In view of the fact that, for efficient teaching of science, preparation of apparatus and material for demonstrations and laboratory work are necessary, science teachers cannot be expected to carry more than half the number of recitations assigned to other teachers.

5. The school course in each science should be designed in the interest of the school pupil, without reference to whether the pupil is going to college afterwards or not.

6. Work in formal chemical analysis, and in detailed histology, or specialized work of any kind, is premature and out of place and proportion in a high-school course one year in length. Such work loses most of its value if unaccompanied by the broader knowledge which supplies the key to its meaning and unlocks the significance of each detail. In the school year there is not time for both.

The school work should confine itself to the elements of each subject, a careful selection of facts and full illustration of principles and modes of thought and work being given.

Any other plan will not only involve departures from the school ideal of a school course, but must inevitably lead to need-

less repetition in the college. A mixed school course is bound to infringe on, and partially appropriate the subject-matter of several different college courses and render any simple linking of school and college work impossible.

7. Unity in aim and similarity of content in the course in each science in all schools are indispensable if proper linkage with college work is to be achieved. This is being reached in other subjects: what is the objection to applying this principle to the sciences? There must be some course in each science on whose general outlines the college and the school can unite; a course which will fulfill the requirements of the school and whose approximate uniformity in all schools of the same class will supply the one condition of its acceptance by the college as a foundation for more advanced work in the same line.

8. The teacher should see that the material selected for the school course is thoroughly mastered by the pupils. It is often the case that a hazy impression of scientific modes of thought is all that the pupil carries away from his course in chemistry. College chemistry, my own included, seems to be as much affected by this tendency as school chemistry. The specific facts, inductions, and laws have been allowed to evaporate. One can no more build advanced chemistry on introductory chemistry of this kind than one can teach solid geometry to pupils whose plane geometry was equally ephemeral. It is needless to say that the benefit of changes in this direction would necessarily be felt by all the pupils whether they went to college or not.

It is not contended for a moment that school work in science disregards the above principles. On the contrary, it must be freely acknowledged that this work is rapidly improving, and that some approach to uniformity on lines like these is among the possibilities of the near future.

RECEPTION OF SCHOOL SCIENCE BY COLLEGES *in posse*

It has already been shown that few colleges have attempted either to define what they expect of the school, or to provide

suitable recognition of the school product when it is presented. The following propositions suggest a college policy:

1. All colleges and universities should recognize (1) the expansion and development which the teaching of the sciences in secondary schools is undergoing and (2) the value to their students, whatever their subsequent line of specialization, of an early introduction to science, by placing the sciences among their entrance subjects as requirements or options. One is inclined to say that physics should be required of every entrant, although dogmatism on this point may be premature. The other sciences should receive due credit among the admission requirements of certain courses.

2. Each college should study the work in the various sciences which is, or can be done in the schools tributary to it. It should then outline definitely what it expects by way of preparation in each science, when that science is offered at all. Finally, it should insist on the presentation of a kind and amount of matter substantially equivalent to this requirement whenever credit is to be given.

3. The college should grant advancement in the series of its courses in each science to an extent corresponding to the admission credit given. In other words, it must recognize adequately, and in a practical form, the extent to which the school work may fairly claim to constitute an anticipation of its own.

To effect this, each department in the college must adapt its own courses so that one of them shall offer a suitable continuation of the preparatory work. This will be open to those students who enter with a credit in the subject, and such students should never be required to begin the science over again in the same class with those who lack this credit and preparation.

To sum up, the college should provide for (1) entrance credit; (2) clear definition of preparatory work; (3) articulation with a suitable college course.

The last condition, although it is logically demanded by the other two, is harder to meet in the sciences than in other subjects, and requires separate discussion.

METHODS OF GRANTING ADVANCEMENT ON THE BASIS OF PARTIAL ANTICIPATION OF COLLEGE COURSES IN SCHOOL

The proportion of the college work in any science which the pupil from the school may be held to have anticipated, will depend on the relative weights of the school and college courses. A year's work in a school may be considered equivalent to about six months' work in college, where both courses occupy the same number of periods per week and the subject is taught with equal efficiency in both. This discount, which, we shall find, is already in force in connection with mathematics, will approximately offset the more rigid selection of the college students, the smaller size of college classes, the greater maturity of the constituents of these classes, and the greater volume of work which can consequently be demanded of them. Additional justification of this discount will be given later.

The impression appears to exist that there is only one possible way of granting the advancement earned. It is true that only one is in general use. This is

THE END-TO-END METHOD OF ARTICULATION USED FOR LANGUAGES AND MATHEMATICS

The college offers courses in these studies which are designed as sequels to various high-school units of work and follow each other in definite order. Thus, in French, one pupil begins the study in college and takes, in the first place, elementary work equivalent to a one year course in a preparatory school. This is followed, if he chooses, by work of a more advanced character. The pupil from the school, who receives credit for one year's French on entrance, is held to have anticipated the first college course, and enters the advanced course directly.

The amount of anticipation in mathematics is even more easily taken account of, for elementary algebra, plane geometry, solid geometry, trigonometry, advanced algebra, and analytics are fairly well-defined topics, and the pupil begins in college where he left off in school.

The adjustment in standard is often achieved in languages by giving a smaller number of hours per week to the college

introductory course than is allotted to the equivalent high-school course. In mathematics, so far as there is overlapping of the last three topics, the school takes half a year to each, while the college can dispose of them in three months. This scheme of discounting ("one third off") the time in school, in comparing it with time in college, seems to express a fair estimate of the average disparity between school and college courses.

These arrangements work well with subjects which are easily subdivided, or where the question is that of placing a college student who has had two, three, or four years of school work in each subject or group of subjects.

The problem is much more difficult when we consider the sciences. Not only so, but it seems to have received almost no consideration. No general method of articulation has been worked out and adopted so far. It has been shown above that, in the case of chemistry, three institutions only out of fifty-six possess any definite plan, and each has adopted a different one.

DIFFICULTIES IN THE WAY OF ARTICULATION IN THE SCIENCES

There are two classes of difficulties to be overcome. One of these lies in the present want of uniformity in the science work in different schools. This is a mechanical impediment and can be removed. There is no reason, inherent in the subjects themselves, why the work in each science in different schools should not be assimilated to the same extent as in mathematics. Even if this were accomplished, however, would the method of articulation in use for mathematics prove applicable in the case of science? Two reasons may be selected to justify the conclusion that this would not remove the most serious difficulties and that simple end-to-end articulation with regular college courses, in the case of some of the sciences, would still be out of the question.

In the first place, the difference in age and surroundings of the pupils, while it leads to some disparity between school and college French or geometry, entails a much greater divergence of standards in the sciences. Science deals with a less closely restricted range of premises, and a less strictly confined set of possible conclusions than geometry, and it cannot be represented

graphically with so much simplicity. It benefits less from the faculties strongest in childhood, like imitativeness and memory, than French. It depends more than these on seeing things in their relations, and therefore gains much from greater maturity in its students.

In the second place, under our present curricula, a year of school language work gives more knowledge of a particular language than a year of school chemistry gives of chemistry. A year of French, for example, is not simply this. It is a part of a long training in the study of language. The general scheme of such study is already a part of the pupil's habit of thought. It will, therefore, be a full measure of French as a specific branch of study. Similarly, a course in quadratic equations will be all devoted to this special topic, since the machinery of mathematical thought has already been acquired. On the other hand; the pupil preparing for college often takes but one year of science. This year, it may be of physics or chemistry, is often isolated. The work is of a novel kind. The proper mental attitude toward science in general has to be developed. The use of a laboratory has to be learned. The pupil sees and handles for himself, and the most valuable acquisition he makes is the discovery that the facts of the science are as well within his own reach as if the writer of his text-book had never existed. But the power to study and interpret the subject-matter of the science for himself is not acquired by him all at once. Much of the time is spent on what is practically an introduction to the methods of finding and dealing with data scientifically. The progress in physics or chemistry, as specific studies, will be less than it would have been in French or mathematics, if the time had been assigned to these instead.

The discrepancy is increased by the fact that not only has a new attitude of mind to be cultivated, but a long established one has to be overcome. The habits of thought already developed are largely antagonistic to those to be acquired, and the teacher of a science often meets with a positive resistance to his efforts to direct the mind of the pupil. The previous work has almost inevitably led the pupil to trust to other people

for his facts, and to authority for his opinions. It is hardly possible for elementary language work to develop any other frame of mind, however strenuously the teacher may try to obviate the tendency. This bias has to be removed before progress in physics or chemistry, as such, can begin.

If the case were reversed, and an almost completely isolated year of French were in question, it is evident that the value of the work would be less specifically, as French, in proportion as its rôle had been more that of an introduction to language study in general.

These two are among the reasons which lead one to doubt whether a claim to anticipation of the same amount of college work could be founded on a year in school in a science, even if it were a known quantity, as on a year in French or Latin.

Even if, in spite of these considerations, school work in science is subjected to no greater discount than that imposed in the case of mathematics (one third), the nature of the college courses, alongside of which the anticipation is to be measured, will usually frustrate the desire to arrange an articulation like that used for mathematics. For the same reasons which prescribe a year as the minimum length for a school course in each science are equally decisive in fixing a similar length for the college courses. Even in college, the majority of the students are comparatively inexperienced in the study of science. A year is necessary if manipulative and observational skill are to be acquired, or if any permanent impression is to be made on the students' habits of thought. A shorter course might give information about the science, but the actual changes in the brain which a proper introduction to science implies can be obtained only by long contact with one or two sciences. If the first year of physics or chemistry in college, therefore, is a homogeneous course, it is very evident that a school pupil, with a total knowledge of the subject equivalent to six months of college work, is nevertheless a complete misfit if he enters at the beginning of the seventh month. He has anticipated a part of the remaining three months' work, and yet he lacks a part, and probably an important part, of the preparation for it which the college

students have received. In the biological group subdivision of the college course, so as to leave a well-rounded section of each subject to the school, seems to be more easily accomplished than in the physical group.

The result of all these circumstances is that the pupil, after a preparatory school course in chemistry, is seldom ready to undertake work in analysis or organic chemistry. After preparatory physics, he is seldom ready to enter a course in mathematical or advanced experimental physics. Even after school botany or zoölogy, he is not always ready directly to pass into more advanced branches of biological work. It is difficult, if not impossible, for a school to anticipate the whole of a thorough introductory college course in a science.

The college necessarily gives a heavier course in a year than the school. The course is fuller and more advanced by a half. The problem is to provide some means of granting advancement corresponding to the partial anticipation of this course which has been accomplished. Four methods are conceivable, and all four are in use.

ALEXANDER SMITH

THE UNIVERSITY OF CHICAGO

(To be concluded)

LANGUAGE-CORRELATION IN THE HIGH SCHOOL

INDO-EUROPEAN philology is a hundred years old. It was more than a century ago that classical scholars at length succeeded in laying their profane hands upon the jealously guarded sacred books of India. Of the discovery and mastery of Sanskrit was born modern philology. It was in 1808 that the genius of Frederick Schlegel, from the mute testimony of words, proclaimed to a protesting clergy, to reluctant scholars, and to an astonished Europe, that we sturdy Teutons are kith and kin not only with the Roman and the Greek, but with the Persian and the black Hindoo.

Schlegel's discovery has been likened to that of Columbus. No other man ever so suddenly threw open to scholarly exploration such a limitless world. The period of exploration that followed more than justified the apparently extravagant anticipation aroused by the brilliant discovery. The plodding industry of a Bopp, a Rask, a Grimm, furnished the data for the demonstration of Schlegel's theory. There is no chapter in the history of any science more interesting than that which recounts the splendid victories during her first half century of modern philology.

Nor has the advance made by the science of language during the closing half century been, in one respect, less gratifying than that of the preceding fifty years. The activity of our leaders in philological thought has continued untiring. That their efforts have not been in vain, one glance at our bookshelves reveals. Here are Gothic, Old English, Old High German, Old French grammars; here is Sweet's *History of English Sounds;* etymological dictionaries of Skeat and of Kluge; Skeat's volumes on English etymology; Max Müller's, Whitney's general treatises on philology; comparative grammars of Latin and Greek; comparative grammars of English and German. Here is *Fick's Indogermanisches Wörterbuch*, actually

restoring in its several volumes the pre-ethnic vocabulary of our Aryan race. Here finally is Brugmann's great work — a comparative grammar, in 2400 pages, of the Indo-European race. It is only in the line of comparative syntax that great discoveries remain to be made. Our first proposition then is this : Indo-Germanic philology so far as phonology, morphology, and lexicography are concerned, *has been written.*

Now propositions sometimes have corollaries. Our proposition has one. It is a simple corollary, but there are some whom it concerns that have never grasped it. Here it is : We secondary language-teachers are teaching in Latin, Greek, German, English, related tongues — tongues the relations of which are solved, tongues for the correlation of which modern philology all the past century has been busily weaving her interconnecting webs of truth and of fact. And this position in which we language-teachers find ourselves is a new one. Our predecessors of a few decades ago were not so circumstanced. Methods of instruction that were all right for them, environed as they were, may be for us under these new conditions quite defective.

Before we proceed further we must remind you that the collateral is not the only relationship existing between Latin or Greek, and English. Probably over three fourths of our vocabulary are derived from Latin and Greek. And philology has been just as busy to solve this lineal as to solve the cognate relationships of our tongue. Our Latin words of the first period — words that came into English as a result of the Roman military occupation of Gaul and of Britain — and our Latin words of the second period — words that are in English as a result of the introduction of Christianity in 597 — brought in as they were during the Old English period, and becoming to all intents and purposes genuine English words, went through the same letter-changes in their later development into modern English as the English words tnemselves did. What these changes were is now known (*cf.* such works as Sweet's *History of English Sounds*) The student who understands the historical development of his own English will have no difficulty with these Latin derivatives of the first and of the second period.

As Latin-derived words of the third period we class the terms brought to us by the Norman-French. Norman-French was simply corrupt, late, popular Latin — a popular dialect that had been mouthed over twice by foreign tongues. But the development of French from popular (and its relation to classical) Latin has been solved. The general laws of French philology are now understood, the vowel and the consonant changes have been carefully tabulated (see Schwann's *Grammatik des Altfranzoesischen*, etc.). The changes too, that the Norman-French words underwent when transplanted into English and during their subsequent development, have been worked out (*cf.* Skeat's *English Etymology*, Vol. II). In short the line is at last complete between the classical Latin word and its form in English now as a Latin-derived term of the third period. . . . Latin words of the fourth period, those adopted during these more recent centuries either direct from Latin or through the French, offer no difficulties to the student who understands words of the third period.

Thus modern philology has made possible systematic, scientific correlation — both lineal and collateral — of secondary language-studies. The question we wish to ask next is: How much of this correlation work is actually being done? Is the high-school pupil getting any systematic knowledge of the cognate and the lineal affinities of the languages he is studying, or are we teachers still teaching English, German, Latin, Greek, as though they were unrelated tongues?

The writer of this paper went through a good high school and through one of our oldest and best colleges, and never found out what cognate words are. Many other college men testify that their experience is the same. In the course of a few years hundreds of our high-school graduates find their way to our State Normal. We have had the opportunity to sound many of these on this subject, and have yet to find one who knows anything worth mentioning about either the lineal or the collateral relationships of English.

A few months ago the author read a paper before the language-teachers of a large city. About forty were present.

None of them seemed to know the general laws of French philology, and only one showed any working acquaintance with Grimm's law. They surely are not teaching what they do not know! The published courses of study of our best high schools, our state course itself, our text-books, the report of the Committee of Ten, the evidence of high-school teachers everywhere, the entrance requirements of our colleges, indeed all the facts from all the sources unite in the testimony that even the simplest rudiments of modern philology have not as yet received merited attention in secondary institutions.

Discovery and exploration are generally followed by settlement. It is only after the fertile continent has become an economic beehive that we feel its mission is realized. In the intellectual world something of the same kind is true. The great discovery, conceived in the brain of the scholar must become in the following ages the inheritance of the commonalty. That is the way the intellectual world progresses. And we feel little sympathy with the scholarly recluse who from his labor can bring forth in the world of matter or in the world of mind, nothing to the utility of the masses. Natural science has seeped out of the study of the specialist into the college, the secondary school, the grades. Economics will follow the example. The mathematical problems that once puzzled the brains of intellectual giants, are now handled by us all. No masterpiece of literature is too precious to be served up to our pupils. The theories and the discoveries of one age are the common property of the next. Now why is it that in the field of philology alone, magnificent discoveries and splendid truths have contributed nothing to the general culture of our race?

Why then this neglected field in secondary language-study? It can hardly be from any lack on the part of teachers of appreciation in general of the value of correlation. To connect in teaching fundamentally related topics is simply the dictum of common sense. A new educational psychology, voicing this common-sense doctrine, has emphasized the extent to which the acquirement of knowledge depends upon interest, and interest upon the relating of what we know to what is to be acquired.

The good teacher nowadays in introducing a new subject seeks to make the most of the "apperceptive mass" of his pupils.

Nor is the correlation we are urging one that is far-fetched or strained. That is almost precluded by the very nature of the case. Greek, Latin, Teutonic—represented by English and German—are sisters. It is only the more fundamental characteristics of their common mother that they have retained through so many centuries.

Is the work we propose too difficult for the secondary school? No. As little or as much of it as one pleases may be done, and hardly anything could be simpler than the facts and principles that in an educational arrangement must come first. What simpler than the general statement, with appropriate illustrations, of Grimm's law? It is absurd to claim that pupils who can handle the problems in algebra and in geometry our pupils do, cannot do this work. Moreover, all these philological matters can be approached in the most natural manner in the world. There is hardly one principle of consequence to us operative in the whole science of Indo-European philology, the workings of which we may not see right in our own tongue; there is scarcely a vowel or a consonant-change in the development of primitive Aryan into Latin, Greek, Teutonic, or again in the metamorphosis of Latin through Norman-French into English, not illustrated in the speech of some one right around us or not easily explainable by some physiological law. Our pupils may be led through homely everyday phenomena, to the knowledge of the most momentous philological facts. The Irishman, the German, the negro, in his attempts to speak English, the little child learning to talk, the man who lisps, furnish us the material with which to illustrate the philology we wish to teach.

Now for our next question—the one that the logic of this argument has finally forced us to: Is the reason that these fundamentally related tongues are not in this day of correlation taught as one might expect related tongues to be, because the teachers do not know the subject-matter involved?

This is a ticklish question. About the hardest thing on earth for a teacher to admit is that there is something connected with

the subject he is teaching that he does not know. Even harder is it to have another tell him this. The man who undertakes to do so will be called all sorts of names. It is high time, however, that there be some plain talk upon this point, and the author is going to answer his own interrogation bluntly. The reason why the great bulk of good teachers do not correlate in their class rooms these related tongues, is that they have not sufficient familiarity with modern philological discoveries. Teachers may think they do not believe in our language-correlation—and they do not, but they would believe in it if they had a thorough knowledge in the line. The human mind is so constituted that they could not help it. And they would make practical use of their knowledge if they had it—not to do so would mean the continual repression of a natural instinct. The introduction of this matter into secondary instruction is simply contingent upon the knowledge of the teachers.

We do not say that teachers have read nothing in the direction of philology. It is quite possible to have read considerable in philological lines without being able to make much practical use of one's labors. This often happens when the attention has been directed chiefly towards the mastery of Sanskrit or even towards the study of Latin-Greek comparative grammar. The university practice of making the first philological work a year or two's grind on Sanskrit, can hardly be strongly enough condemned. Philology like charity should begin at home. Sanskrit played such an important part in the birth of Indo-European philology that the opinion is abroad that it is the *sine qua non* of all comparative language-study. We do not underestimate the value to the specialist of a knowledge of Indic, but the would-be correlator of Latin and English, for example, will find some acquaintance with early English and its development through the Norman-French period into modern English, a hundred times more serviceable. The science of language needs to come down to earth occasionally. Like Schiller's Jungfrau our fair goddess seems to show a disheartening tendency to wander on the mountains and a dread of descending to dwell in the lowly huts of men.

We have just one more question. Why have not the teachers as a rule the philological knowledge necessary for this work?

There are several reasons. They themselves were not taught it in school. It has hardly as yet dawned upon many that there is any such field for labor. A few *have* a more or less definite knowledge of Grimm's law—even these usually know nothing of the vowels—but the teacher must know far more philology than that if he is to make much impression upon his pupils. Again, although philology is a hundred years old it is less than half that time since the vowels were mastered, and the science of language was, so far as practical results are concerned, in a very unsatisfactory state until the development of every Aryan sound was thoroughly understood. There is too a tendency on the part of a few teachers to think that what they were taught is good enough for their pupils and a disinclination to settle down to dig out new things for them. But the reason I would emphasize most is that there are not the suitable books for teachers in these lines. There is today no simple manual that gives in concise form the main results of modern philological thought. Teachers must gather these facts from a dozen different works, most of them costly, technical, some of them not printed in English. The two Latin grammars, until very recently almost exclusively in use, based their derivation matter—so far had they lagged behind the times—on the old belief that the parent speech had only three vowels. One of them actually informs us that *vox* is cognate with *voice*, and *navis* with *navy*. One of the best of our first year Latin books tells us that English *know* is derived from Latin *nosco* and that *care* is from *cura*. The same book does not know that *joy* is from *gaudiam*, *feat* from *factum*, *eager* from *acer*, *copy* from *copiam*, etc. The above all shows that teachers are not alive upon these things. Publishers will scramble to revise their books when teachers know an inferior article. The one or two creditable publications that have appeared recently seem to think that to the English student it is more useful to correlate Greek and Latin than it is to correlate Latin or Greek and English. There is as yet no Latin-English comparative grammar though there are several Latin-Greek grammars.

Now to suggest in a paragraph or two a course for the high-school in language-correlation. As concerns the cognate relationships then:—Some acquaintance with Old English with the chief sound and letter-changes in its development into modern English. . . . A good working knowledge of the comparative phonology of English, German, Latin, Greek; the introduction to each sound-change being made through some similar phenomenon that has come under the pupil's observation. . . . Familiarity with several hundred groups of cognates. Especial attention to cognates that are of an extraordinary interest through striking sound-changes, variations in meanings, historical suggestiveness, etc. . . . Application of the knowledge of phonology in a dozen or more practical fields—as in the identification of the ablaut-series of English, Greek, German, Latin; the identification of their numeral systems; reconciliation of their principal declensions and remnants of declensions; of their pronominal systems; of their chief formative suffixes; identification of English and German umlauts. . . . Teutonic and Indo-European history gleaned from cognates and their classification. . . . Something of the history of philology, classification of the languages of the earth. Theories of the origin of language.

As regards the lineal relationship of English and Latin (or Greek):—Old English and its development as above. . . . Our Latin and our Greek derivatives of the first and of the second periods, what they are, their nature, the changes they have undergone. . . . Differences between classical and popular Latin. . . . The general laws of French philology. Table of sound-changes and practice in using it. Each sound-change correlated with some such phenomenon already known. Our Latin derivatives of the third period, classified to illustrate vowel-changes and consonant-changes; classified again by suffixes. All the typical groups of derivatives. The character of words of the third period. The history they tell. Especial attention to the most interesting words. . . . Words of the fourth period, their nature, their classes, their changes. . . . Other foreign elements in English.

O. L. MANCHESTER

ILLINOIS STATE NORMAL UNIVERSITY

NATIONAL UNITS

THE report of the Committee on College Entrance Requirements ought to mark something like an epoch in the relation of the university to the preparatory school. It is so painstaking, so cautious and conservative, and yet so progressive, that it must surely render easy one or two important steps in advance.

The proper relation between preparatory courses and college requirements has nowhere been more felicitously stated than in these words of the chairman: "College courses ought to be so adjusted that every pupil at the end of a secondary course recognized as excellent, both in the quality and quantity of its work, may find the doors of every college swing wide open to receive him into an atmosphere of deeper research and higher culture along the lines of his mental aptitudes" (p. 7).

"Every young man or woman who has successfully devoted at least four years to earnest study in a well-equipped secondary school should be admitted to any college in the country, whether such a pupil has devoted a greater part of his time to Latin, Greek, and mathematics, or to Latin, modern languages and mathematics, or to Latin, mathematics, and the sciences, or to any other combination of studies which has developed his power and been in harmony with his intellectual aptitudes" (p. 8).

Wisely, however, the committee has not attempted to formulate secondary programs, nor to prescribe the way in which the university shall determine as to the excellence of the quality and quantity of preparatory work, nor to discover an infallible rule for distinguishing between "a combination of studies which develops the power of the pupil and is in harmony with his intellectual aptitudes" and one that does not. This is a land full of windmills and swarming with valiant Don Quixotes. As a matter of fact, many vagaries and differences of administration may be tolerated without endangering the real object of the committee. The vital point insisted upon is that all preparatory subjects required or accepted by reputable universities be defined in

a uniform way and conveniently measured in units or norms which shall pass current everywhere. That this would be an important step forward cannot be doubted. That the universities are ready for such an advance is almost equally certain. Indeed, the general principle has already found large acceptance. There are many differences of detail, but not a few institutions have tried to reach the same results as those for which the committee is striving.

Now, these differences of detail, while not very important in themselves, are, as the committee has pointed out, infinitely confusing. And all the strength that comes from united action is lost. The next step is to harmonize these varying statements and give the different subjects fixed values with reference to one another. Consider what this will mean. In the first place, it will vastly simplify the process of manufacturing school programs. So many school programs fail, not because of an unwise choice of subjects, but because too many subjects are chosen, and these are pursued by wrong methods and aim at wrong results. A definition of subjects, methods, and results to be obtained having the united sanction of the universities would put an end to unnumbered atrocities. There would still be many varieties of programs; but every program would fulfill the conditions of excellence as to quality and quantity of work undertaken. Not every school would attain to this excellence in practice. But it would be of immense value to have an intelligent and recognized standard by which schools could gauge themselves and be gauged.

Under this system pupils in any part of the country preparing for a given university would, within limits, be preparing for any university. This would certainly be an advantage to the preparatory student, and to the university also. It would raise the standard of entrance requirements in many institutions, and it would further the transfer of a student from one university to another, thus developing a migratory spirit which needs wise encouragement in this country.

The committee has clearly indicated the next step to be taken. It has not, however, provided for its actual accomplish-

ment. If, as I believe, the universities are ready for this step, cannot the SCHOOL REVIEW provide the little machinery necessary to set the column in motion? A conference, personal or by correspondence, of accredited representatives of a dozen or more of the leading universities could bring the thing about. With the committee's elaborate exposition of individual subjects as a basis, supplemented by the latest entrance statements of Harvard, Chicago, and perhaps others, taken in connection with the relative unit values already in use at Chicago, California, Stanford, and Harvard, it would not be insuperably difficult to reach a phrasing acceptable to all these institutions. And if acceptable to these institutions, it would inevitably come to be adopted by all institutions ambitious of university rank.

O. L. ELLIOTT

LELAND STANFORD JUNIOR UNIVERSITY

A HIGH SCHOOL COURSE IN ENGLISH

In an article in the February 1899 number of The School Review the lack of uniformity in the existing courses in secondary English was brought out by means of tables compiled from material furnished by many representative high schools of the country. From these tables the writer deduced the need of an ideal, or model course, for the guidance of the teachers of English the country over. There is no doubt that this need is widely felt, and that many teachers are busy in developing practical, if not ideal working plans. The time of arrival of the model course might be hastened by a study of these various attempts. The following course is presented, not as a model by any means, but as a practical one which seems to be working well:

FIRST YEAR

2½ hours a week. (Every other day)

COMPOSITION — RHETORIC

First half-year

GRAMMMAR — 1½ hours.

Spelling, capitals, punctuation.

Review of grammar.

See Buehler: *Exercises in English.*

Study of the clause and the sentence (based on some book of the American prose).

*COMPOSITION — 1 hour.

Simple narration and description. (Inventional, with elementary outlines.)

See Keeler and Davis: *English Composition.*

Second half-year

*COMPOSITION — 1 hour.

Simple narration and description. Material furnished from history or literature.

*All compositions, after correction by the teacher, are revised or rewritten by the pupil, and again inspected by the teacher, usually in the presence of the pupil.

AIMS

To secure correct grammatical use.

To stimulate interest in self-expression through writing.

LITERATURE

First half-year

AMERICAN PROSE.

Reading of Irving, Hawthorne, Cooper.

(Taken up but slightly in class in connection with grammar and composition.)

Second half-year

AMERICAN POETRY — 1½ hours.

Longfellow, Lowell, Whittier, Bryant, Holmes.

Study of one representative work of each.
Reading of other works of each.
Memorizing of selections.
Study of lives and times of American authors.
(Simple figures of speech.)

AIMS

To stimulate enjoyment of literature (appeal to tastes and feelings).
To give knowledge of American period of history and literature.
To include the college requirement.

SECOND YEAR

2½ hours a week. (Every other day.)

COMPOSITION — RHETORIC

1 hour

First half-year

STUDY OF THE PARAGRAPH.

See Scott and Denney: *Composition-Rhetoric.*

Second half-year

HISTORY OF THE ENGLISH LANGUAGE.

See Meiklejohn: *The English Language.* Part III.
Word study: derivation, synonyms, prefixes, suffixes, stems; accurate use.
Figures of speech.

COMPOSITION.

Narration and description combined, with especial attention to paragraphs.
*Correction as in first year.

AIMS

To secure right understanding of the paragraph, and proper use of it.
To enlarge the vocabulary.
To secure accurate use of words.

LITERATURE

1½ hours

NINETEENTH CENTURY LITERATURE.

Scott, Maculay, Coleridge, De-Quincey, (Dickens), Tennyson, (Lamb), (Thackeray), (Wordsworth), (George Eliot), (Byron).
Study of a few masterpieces.
Reading of other works of the time.
Memorizing of selections.
Slight study of literary characteristics (forms of literature — essay, novel, etc.).
Beginning of study of verse.
Study of life and times of each author.

AIMS

To lay the foundation for appreciation of literature.
To give knowledge of the period.
To include the college requirement.

THIRD YEAR

2½ hours a week. (Every other day.)

COMPOSITION — RHETORIC

1½ hours

First half-year

STUDY OF THE SENTENCE; long, short, loose, periodic.

SKILLFUL CHOICE OF WORDS.

See Scott and Denney: *Composition-Rhetoric.*

COMPOSITION.

Retelling of narratives and descriptions requiring condensation, with attention to words and sentences.

Second half-year

Study of exposition and argument. (*cf.* Burke).

Study of detailed outlines.

Problems of connected theme.

See Scott and Denney: *Composition-Rhetoric.*

COMPOSITION.

Exposition: making of outlines.

Long compositions.

*Rewriting and correction as in first year.

AIMS

To secure good sentence-structure and skillful choice of words.

To cultivate ability, to make and develop good outlines (logical thought).

LITERATURE

1 hour

EIGHTEENTH CENTURY LITERATURE.

(Perhaps some of late seventeenth century.)

Burns, Addison, Goldsmith, Steele, Burke, (Swift), Pope, (De Foe), (Dryden).

Study of a few masterpieces.

Careful study of Burke (as fine exposition and argument).

Reading of other works of the time.

Memorizing of selections.

Study of main literary characteristics (plot, character, allusions, language).

Continuation of study of verse.

Study of life and times of each author.

AIMS

To stimulate appreciation of literature.

To give appreciation of logical thought.

To give knowledge of the period.

To include the college requirement.

FOURTH YEAR

3 hours a week

COMPOSITION — RHETORIC

1 hour

Review of different kinds of composition, with more extended study of each.

NARRATION — with differing time standpoint. (Proportion, selection, climax, suspense.)

DESCRIPTION — dependent on point of view. (Selection, sequence.)

EXPOSITION AND ARGUMENT — with reference to effectiveness. (Proposition, selection, arrangement.)

Detailed outlines.

Qualities of style — clearness, force.

*Long themes: rewriting (and correction as in first year).

(Three themes to be delivered before the class.)

AIMS.

To secure appreciation of the different forms of writing, and some ability to handle each form intelligently.

LITERATURE

2 hours

SHAKESPEARE AND MILTON.

HISTORY OF ENGLISH LITERATURE. —A review of the different periods by means of critical study of new representative masterpieces, too difficult for earlier years, and by study of the lives of the principal authors and of their times.

As wide as possible reading in connection with the different periods.

Memorizing of selections.

Literary criticism — plot, character, moral, appropriateness of verse form; *style*.

AIMS.

To stimulate appreciation of poetry and love of literature.

To give knowledge of the history of English literature — a comprehensive idea of the whole field and a closer acquaintance with some parts of it.

To include the college requirement.

The number of hours given to English must be understood to be adapted to classical school, where a great deal of attention is devoted to language-study. The time is divided almost equally between literature and composition-rhetoric. The term composition-rhetoric signifies the principles and the practice of composition. Literature and composition are treated as parts of the same whole. The literature serves to illustrate the principles of composition, for from it they are derived; and it furnishes subjects and inspiration for themes. Each year's work is a part of a definite progression in material and in aim.

Composition is developed in the order of the whole — composition, the paragraph, the sentence, and words — the order of development in the mind of the child. The writing of themes is weekly; the themes are corrected by the teacher, revised or rewritten by the pupil, and again examined by the teacher with unfailing regularity. The desirable daily writing seems, under present conditions, impossible — at least if correction of all written work is considered indispensable. Written lessons in the other branches of study — a weekly written translation, a record of chemistry experiments — do much toward making daily

writing for each pupil practicable. Each theme written during the four years is corrected with regard to some one principle (or, perhaps, more than one later in the course), which the pupil understands before he writes, and which he has in mind while he writes. Thus, the first half-year mistakes in grammar, capitals, and punctuation are weeded out with rigorous insistence; and, subsequently in the course, such errors are not expected to occur: if they do occur, they are accounted grave ones. If, after the study of the paragraph in the second year, a third-year pupil constructs an incorrect paragraph he knows his mistake merits greater severity of criticism than it would have called forth earlier in his course. The kinds of composition are taken up in their order of difficulty, proceeding from narration to argument; while the last year affords work which is in the nature of both a review of that of the other three years and further development of it also.

The order of the work in literature is determined by the difficulty of the subject-matter and a definite chronological sequence. The latter of these does not interfere with the former; and it has distinct intrinsic advantages. Such an order fixes in the mind of the pupil, without extra expenditure of direct effort on his part, many of the fundamental facts of the history of literature. When he has finished the course he ought not to be able to think that Goldsmith and Milton were contemporaries, or that Scott lived before Swift. Each great period will stand out distinctly in his mind; each great writer will be associated with his own time. It is true that some American literature is too difficult for first-year pupils, some nineteenth century literature too difficult for second-year pupils; but such work will not be given at those times. It will be kept for the fourth year, which offers a review of the whole history of English literature in its proper chronological order. The separate classics taken up vary somewhat from year to year. This is partly due to the variation in the college requirement. The same great artists and masters of style are studied each year; and the list always includes the various forms of literature — the essay, the novel, the epic, the lyric, the drama. The method of taking up each masterpiece is determined by the aim of the literature work for that year, an aim which is part of a definite series of aims which all contribute to the great purpose in the teaching of literature.

EMILY ISABEL MEADER

PROVIDENCE CLASSICAL HIGH SCHOOL

RECENT EDUCATIONAL BIBLIOGRAPHY[1]

II

CHILD-STUDY

The Money Sense of Children. By W. S. MONROE (in *Pedagogical Seminary*, March 1899, Vol. VI, 158.)

A bibliography of eighteen titles is appended. Five of the items are in French or German, and seven of them should be found in any small library. No notes.

Home and School Punishments. By C. H. SEARS (in *Pedagogical Seminary*, March 1899, Vol. VI, 185–187.)

A bibliography of thirty-seven English titles is appended. Periodical references and chapters in books are given. Much of the matter is accessible in the ordinary library. There are no notes.

Bibliography of Child-Study. By L. N. WILSON (in *Pedagogical Seminary*, April 1898, Vol. V, 541–589.)

Author is librarian at Clark University. The list comprises about 600 titles and is the fullest bibliography of child-study yet printed. Titles in all languages are included. There are many helpful notes. It is an alphabetical author list with full subject index at end.

EDUCATION

Classified Reading. By ISABEL LAWRENCE. 405 pp., 8vo. St. Cloud, Minn., 1898.

This is the most important and extensive piece of educational bibliography since Mr. W. S. Monroe's volume in 1897.

It is a 400-page list of books (on the subjects noted below) which will be useful to teachers in their own work and as supplementary or illustrative reading for pupils. It is the winnowed result of many years of normal-school work, and is designed to exclude all books which have proven ephemeral, or have been succeeded by better work.

The title, "Classified Reading," is vague and indefinite, while the subtitle, "With a full Bibliography of Education," is too ambitious.

[1] No. I is in the number for October 1898.

This the book distinctly is *not*, since it leaves wholly unnoticed entire phases of the subject, *e. g.*, school administration and supervision.

It is divided into seven sections: A, Pedagogy and psychology, 36 pages; B, Child-study, 40 pages; C, Geography, 88 pages; D, History, 132 pages; E, English, 50 pages; F. Nature study, 55 pages; G, Miscellany (including very brief lists on manual training, physical culture, music, reference books, mathematics and business). Each section is further subdivided, and in each subject a useful attempt is made to arrange many of the books by grades although the author frankly recognizes the difficulty of any hard and fast arrangement of this kind. The books included are all in English. Section A is the best in the book in the number and extent of the notes and, perhaps, in the excellent choice of the titles included. It is the least satisfactory section in arrangement and classification. One is never sure of what is here or whether a certain book is included until all the nine subsections have been examined. Books on teaching are found in three or four places, and the kindergarten literature is scattered through sections A and B.

It is not clear why all titles named in section A are not as much "books for libraries" as the twenty-five varied titles which, at a loss in coherent classification, are so captioned.

Two serious omissions are: H. Barnard's *Kindergarten and Child-Culture Papers*, and under "Current reports" there is no mention of the annual volumes of the Commissioner of Education.

Section B comprises about 400 titles. Periodical articles are extensively referred to. Notes abound. *Babyhood* and the *Educational Review* touch elbows in a strange list of sixteen journals valuable in child-study, but beyond this list no mention is made in the entire book of this most important phase of educational literature. Sections C to G are each prefaced by a brief list of books on methods and matter, while the bulk of the book is devoted to supplementary and illustrative reading for pupils. No text-books are included.

In history and geography a full geographical and chronological subdivision is made. Titles claiming inclusion under both heads are repeated.

Books frequently meet the eye in which the history or geography is so slight as to belie their value in such a list, and the Rebellion records issued by the government are certainly not enlivening matter for the young student; but when all is said, the selection of books is thoroughly good and its usefulness to all practical and enthusiastic

teachers is beyond estimate. It is so complete as to debar criticism on that score, and most important of all, the good judgment in choice has resulted in a wonderfully healthy and wholesome list.

The most serious omissions are in the lists on Methods, *e. g.*, Channing & Hart's *Guide to American History*, far and away the most useful book in print to the teacher of this subject, is not named, nor is mention made of Professor Mace's *Method in History*. The invaluable report on geographical education made to the Royal Geographical Society by Mr. J. Scott Keltie, is not noticed. It is a pity that more notes are not included. It would take little more space and if the compiler did not care to attempt independent evaluation, selections from competent criticism would have added to the value of the work Such notable titles as: Palgrave, *Golden Treasury;* Freeman, *Methods of Historical Study;* Harris, *Psychological Foundations of Education*, and *Report of the Committee of Ten* are given with no word of comment to indicate their relative importance. An alphabetic arrangement by authors would be better than the haphazard title entry used. Wide margins permit additions.

Full imprint information is given including price. The table of contents is full and furnishes an excellent aid to consultation.

Selected Bibliography of Some Phases of Education. By J. I. WYER. 12 pp., 8vo. Philadelphia, 1899.

This is a list of 250 titles to accompany a syllabus used by the Civic club of Philadelphia in the study of educational history, conditions, and administration in the United States. The six sections are: Educational Theories; Education and the State; History of Education; School Administration and Supervision; Psychology and Education; Periodicals. There are many notes especially in the last two sections. Journals, reports, and parts of books are analyzed.

GEOGRAPHY

Hints to Teachers and Students on the Choice of Geographical Books for Reference and Reading. By H. R. MILL. 142 pp., 12mo. London, 1897.

This thoroughly satisfactory little book, by the librarian to the Royal Geographical Society, is to be warmly commended to all teachers of geography as a more than usually useful and well done piece of bibliography.

The object of the volume is to place before teachers and students a selection of the best available books on geography as an educational subject and the geography of the different parts of the world.

The book is divided into eighteen brief chapters, each one followed by a carefully selected bibliography of the subject. The text, though forming the minor portion, is fully abreast of the book lists in competent treatment and practical usefulness, especially the chapters on Principles of Geography; The Teaching of Geography; Choice of Text-books; Atlases and Means of Illustration.

The book lists embrace about 600 titles and a short note accompanies every one.

GERMANY. EDUCATION

German Higher Schools. By J. E. RUSSELL. 455 pp., 8vo. New York, 1899.

A list of references follows each chapter. Naturally most of them are in German. Titles of chapters are as wide as the range of education, those on methods of instruction in particular subjects being perhaps of most direct value.

HISTORY

New England History Teachers' Association—Text-books in American History (in *Educational Review*, Dec. 1898, Vol. XVI, 480–502).

An exhaustive committee report is followed by a list of nineteen representative text-books; each title is accompanied with full and authoritative critical and descriptive note. Of utmost value in the choice of text-books in American history.

American Historical Association—Committee of Seven. Some books and articles on the teaching of history (in *The Study of History in Schools.* New York, 1899. Apx. 7, pp. 239–247).

Six titles "with which every teacher of history should be acquainted;" five "other noteworthy books on historical method;" ten useful periodical articles; five books in foreign languages; eight books and articles on history teaching from the English point of view. The most important titles are followed by brief and only fairly satisfactory descriptive notes. Appendix 8 lists a dozen of the most useful maps and atlases.

NATURE STUDY

Illustrative Material for Nature Study in Primary Schools. By CLARA W. HUNT. 29 pp., 8vo. Albany, 1899 (New York State Library, Bibliography bulletin 16).

An alphabetical list of nature objects, animals, plants, stones, etc., followed by carefully selected references to books and periodical articles where nature study material concerning them may be found. A list of the books to which citations are made and an excellent list of reference books in nature study for teachers are prefixed. The work has been done with care and practical intelligence.

SCHOOL HYGIENE

Bibliography of School Hygiene. By W. H. BURNHAM (in N. E. A. proceedings, 1898, pp. 505–523).

Four hundred and thirty-six titles, largely foreign, comprising books, reports, and articles in journals and composite books collected by this professor at Clark University. Important titles are indicated by brief notes. A classification by subject would have made a much more useful piece of work.

SCHOOL LIBRARIES

National Educational Association—Library Department. List of books for rural schools with small libraries (in N. E. A. proceedings, 1898, pp. 1016–1022).

The names on the committee which prepared this list are a guarantee of good work.

There are 130 titles, classified by grades. Publisher and price are given, but no notes.

J. I. WYER

THE UNIVERSITY OF NEBRASKA

THE CHANGES IN THE REGENTS' SYLLABUS FOR 1900[1]

THAT so many have remained to hear a report set down for the afternoon of the last day indicates the interest felt in a work which touches nearly every school in the state. Only the merest outline of what has been accomplished can be given here. Preliminary reports containing suggested changes were made at Convocation one year ago, and at the Principals' Conference last December. These reports have been printed and can be obtained from Director Parsons.

Group 1 has been cut down by omitting English prose, English poetry, German classics in English, French classics in English, Latin classics in English, Greek classics in English, Latin third year, Greek second year, Greek third year, and Ovid's *Metamorphoses*.

In the third group French history and the second reading course in United States history have been omitted. In New York state history a reading course will be added to the present syllabus. This is a compromise, as it was the recommendation of the committee that New York history be either discontinued, reduced to one count, or made a reading course in connection with advanced United States history. The following has also been recommended and agreed upon: English reading is to be given a full year with four academic counts, and to be known as fourth year English. Two counts each are to be given to Greek and Roman history, plane and spherical trigonometry, are combined, making one examination with two counts. Latin composition and Greek composition should each receive two counts. To the special topics in history biography has been added and the syllabus in American history somewhat simplified.

It has been thought best to submit to this body, and to the Principals' Conference in December, the question of whether first, second, and third year English shall be fixed courses for five years, or whether they shall be gradually changing as the course in English reading has always changed. It is thought that a boy who fails in *Ivanhoe* can better spend his time in studying some other work of Scott than to go over *Ivanhoe* a second time.

The custom which now prevails of encouraging a student who has failed in the first year to go into second year Latin and second year

[1] Report of Principal F. D. Boynton, chairman, at the June Convocation, Albany.

Greek, and to receive credit for both when he passes the second year, should be extended to French, German, English, solid geometry, and advanced algebra. There are to be no ten weeks' courses. All short courses have been abolished.

The question of adjusting the program for the two schools of science teachers, those who want to continue or think they must continue the text-book method, and those who wish to do laboratory work, will probably be met by combining physics, parts one and two in one year, chemistry, parts one and two in one year, with laboratory work in each, lists of experiments to be given in the syllabus, a certain number to be successfully performed and the notebooks to constitute part of the final review.

The committee on courses of study have received a great many very valuable suggestions. They have met and discussed and argued, they have tried to keep good-natured, but they have no course of study, and they are of the opinion that a fixed course of study for the Empire state cannot be arranged and is not desirable. They are positively certain that the Empire state now has no course of study, unless the regents' syllabus may be called such. Certain localities have, others think they have, a course of study, but in most communities we find that the program changes as frequently as principals change, or, more often, as the local committee changes.

In the last high-school report may be found the following: of the 112 schools reporting to the committee 64 schools report a classical course, 69 schools a Latin scientific course, and 80 an English course. In the 64 schools having a classical course, 68 different subjects are taught, a substantial argument that the "traditional" or "historic" B.A. course has disappeared from preparatory schools. In the 69 schools having a Latin scientific course, 70 different subjects are taught. In the 80 schools having an English course, 69 different subjects are taught.

The 1895 syllabus prescribed 28 counts for every course: 8 counts in English, theoretically 6 points in mathematics but practically 8, 6 in science and 6 in history. If the student elected the classical course (Latin and Greek) he added 15 points in Latin and 11 points in Greek, making a total of 54 points, or four and one half years for graduation — a condition equally true when he elected French or German in place of Greek. This discrimination against the study of foreign language should be discontinued. The committee unanimously agreed that (1) the twelve years below the college should not be

lengthened by the addition of a minute, which means, that four years under the present division of grades are sufficient for a secondary school course; (2) that three subjects a day, five hours a week, of prepared recitation, not to include music, declamation, public speaking, elocution, or rhetoricals, are all the average student could do. Three subjects a day, five hours per week, forty weeks in a year, four years, makes 2400 hours in the secondary course. Four years of Latin take one third of the time, 800 hours; mathematics, 400 hours; Greek, French, or German, 600; physiology, 100; United States history, 100; Greek and Roman history, 200; science, 200, with not an hour left for English. This is not satisfactory. The solution lies (1) in more work per day, (2) or in adding another year to the course, or in combining the work of the seventh, eighth, and ninth years, which can be done easily, with the saving of a full year for other work.

For the first year certificate a foreign language may be substituted for the four English points heretofore required. The committee recommends that the same scheme be continued for all certificates and the director in his high-school report accepts the suggestion (see p. 388).

One other change with reference to the daily program of examinations. There has been a very wide objection made to the advanced subjects coming in the last two days, — solid geometry, physics, fourth year English, etc. The suggestion of the committee was that the examination in the preliminaries and the elementary high-school subjects might come Thursday and Friday, thus affording the graduates much needed relief by bringing the advanced subjects earlier in the week. This will be done.

Each principal will receive a copy of the syllabus from the office before it is finally printed, with a request that any changes which he thinks ought to be made be sent either to the committee or to the regents' office, in order that they may be incorporated, if found feasible, in the final revision. This proof of the syllabus, it is hoped, will be ready some time during the month of October. The 1900 syllabus goes into effect on the first day of August, 1900, giving a full school year in which to discuss the changes that have been suggested and others that may appear as the work progresses.

F. D. Boynton

High School
Ithaca, N. Y.

COMMUNICATION

THE HONOR SYSTEM

To the Editor of the School Review.

DEAR SIR: — Being a Virginian, I read with a great deal of pride Dr. Mackenzie's view of "the system long associated with the name of the University of Virginia," which I believe to be the true system of conducting examinations in schools and colleges; at the end of the examination paper each student should be required to sign a pledge, certifying on his word of honor that he has neither given nor received assistance during the examination.

In the schools in which I have taught, there has been a diversity of opinion among the faculties, the opponents of the pledge system claiming that a student who would cheat during an examination, would without hesitancy sign his name to such a pledge; and that it only made matters worse by requiring him to certify on his word of honor to a falsehood. This I do not believe to be true, as there is a certain sacredness about pledging one's honor which appeals to the majority of boys, and if the student has had the proper training in his preparatory school it is unreasonable to believe that by the time he reaches college the pledge will not be a guard against his receiving assistance.

We all, who have had the advantages of an education, have lived in three worlds, each with its different environments, with temptations and responsibilities growing greater and greater as we go from one to the other; to live rightly in one we must have lived rightly in the other; each is going to add to or take from that which is left from the other. To be an honest student in college one must have been an honest student in his preparatory work; to be an honest man in the world one could not have been a thief at college.

I had an opportunity a few years ago to test the great advantages of the honor system, and the bad results of the prevailing system of not requiring the student to sign a pledge, but the instructor keeping a diligent watch over him during the examination. I have been associated with a school where the honor system was used throughout the work, the word "certified" being required on every paper handed in by the student, whether examination or general class work. There was a higher standard of honor in that school and a stricter sense of

individual responsibility during examinations than in any school of which I have knowledge.

A few years ago, I was teaching in a preparatory school to one of our leading colleges, and at the first intermediate examination brought up the question of the honor system, which has always been in vogue at the Virginia Military Institute, where I was educated. It was opposed by members of the faculty, their principal reason being the one which I have given. I, however, adopted the system in my own classes with great success. Being interested then in the question, and knowing that examinations were in progress at the college, I talked with a number of the students on the subject. I was absolutely amazed at the view some of the young men took of it. One of them, with apparent pride, showed me a set of octagonal pencils that had been handed down from class to class, he having paid ten dollars for them. On the sides of these pencils was, practically, the synopsis of physics, all of the principal formulae being neatly and systematically cut. These he would take into the examination hall, apparently to write with, and would use one after another, until he found the one that had on it what he wanted. I was also shown what was known as a "roll," on which a synopsis of Logic was written. On asking the question, if a pledge was not required, the reply was, "No, if it had been, we would not have cheated him," and on further questioning, I found that the idea of being dishonest was overshadowed by the idea that they were getting ahead of the professor.

That this condition should exist in one of our leading colleges is surely very deplorable, and I trust the day is not far off when all of our schools and colleges will adopt that system so well known at the University of Virginia, and which has proved so successful at Princeton and Cornell.

It should be so, and with the honor system it is so, that a student will be in as much fear of having his classmate see him "crib" as his instructor.

Dr. Arnold's theory of character building, as the first aim of education, should be at all times before the instructor, and the student should be made to realize that he is building the character house in which he is to live for the remainder of his life, and should see to it that the foundation is not built upon the sands of dishonor and deception.

THOMAS A. BLACKFORD

WILMINGTON MILITARY ACADEMY,
Wilmington, Del.

BOOK REVIEWS

Caesar's Gallic War. (Allen and Greenough's Edition.) Re-edited by JAMES B. GREENOUGH, BENJAMIN L. D'OOGE, and M. GRANT DANIELL. Ginn & Co., Boston, 1898.

THIS revision of a well-known school text has been notably thorough. The new edition has 675 pages, the old 593. The expansion has been most largely made necessary by an increased number of maps and illustrations of which the old edition has 61, the new 133, by supplying English paragraph headings throughout and by vocabulary notes at the bottoms of the pages. These notes in the first four books refer to previous uses of the words noted; in the last three they supply synonyms and and autonyms. The former class of notes is to be most heartily commended as likely to lead to correct, independent habits of vocabulary work, and to prevent much needless thumbing of the vocabulary. The latter seems more open to question. Is it not beyond the pupil at this stage of his progress, and so likely to lead him to confuse words really very different in derivation and application?

As further means of vocabulary drill, ten pages are given up to groups of words related by derivation. As a rule these groups are composed of words found in Caesar, and do not lose their value by including uncommon words, or those but remotely connected with the common root. There are eighty-six groups in all. The general vocabulary, though requiring less modification than other parts of the book, shows, by a multitude of small changes, painstaking care in adapting it to its purpose. Many Greek roots referred to in the former edition are omitted. Many Latin roots are defined, and explanatory matter suited to more advanced pupils is eliminated. Care has been taken to add synonymous or figurative meanings omitted before, *e. g.*, "consider" under *respicio*; "understand (what to do)" under *sapio*.

The text has been largely modified by a study of Meusel, but a comparison with Meusel shows that the editors have used independent judgment in differing from him in many places. The ending *is* has been uniformly used in the accusative plural of *i*-stems, and the character *i* for both vowel and consonant. A feature of this edition, as of the former, is the punctuation according to our English system,

and not according to the German texts in which, for instance, all relative clauses, restrictive as well as explanatory, are separated by commas. It seems to the writer that Professor Greenough is right, and that his method is distinctly better adapted to taking in the sense in the order of the Latin. All long vowels are marked throughout the seven books.

In the notes there is much to commend. The giving of a separate paragraph to each note, and the printing of the number of the page at the head of each paragraph in full-faced type make it easier to find the needed comment than in the old edition. The frequent cross reference to previous passages rather than to the grammars is admirable; so, too, are some of the early notes which deal with broad principles of language-study, or with controlling characteristics of the Latin, *e. g.* the last part of the note on page 2, line 1; the notes on page 2, line 23, and page 3, line 11. It was a wise concession to the immaturity of second year pupils which led the editors to insert literal translations in connection with freer rendering, and to postpone the more difficult constructions for a time; see note on page 4, line 12. The editors, however, have not always been consistent in such a handling of the text; see *e. g.*, page 1, note 2; page 5, note 7, and page 7, note 17. Sometimes long notes are given upon minute or doubtful points in the subject-matter — notes which seem to be intended for rival editors rather than inquiring students; see *e. g.*, the notes upon disputed localities under page 48, line 19, and page 69, line 7. The difficulty is heightened in the case last quoted, by giving a full-page cut to represent a modern locality which probably has nothing to do with Caesar's campaigns. The cuts of coins are much more numerous than is desirable.

After all strictures are made, however, the editors are to be heartily congratulated upon the production of a book both scholarly and usable, and the secondary teacher, upon having a greatly improved tool at his hand. The grammatical references are to Allen and Greenough, Gildersleeve and Harkness.

The same publishers (Ginn & Co.,) announce for this fall a volume by the same editors, intended for second year work, and made up of easy selections, and a reading course in Caesar, equivalent to four books. We are reminded that the introduction to the volume under review contains (pp. lv–lvii) five reading courses, either of which would be preferable to the traditional "first four books of Caesar."

ISAAC B. BURGESS

MORGAN PARK ACADEMY

Social Phases of Education. In the School and the Home. By SAMUEL T. DUTTON, Superintendent of Schools, Brookline, Mass. The Macmillan Company.

PROGRESS is by no means a uniform advance along the whole front. Just now, the forward movement, both in education and in sociology, is at the point where these two great aspects of civilization touch each other. Efforts for social amelioration are taking an educational direction; while education, religion, and philosophy show a marked tendency to swing around from the individualistic to a social point of view. There seems to be no doubt that the new way of looking at these questions, enriches our conceptions, and, in many respects, revolutionizes our methods.

A very timely discussion, therefore, is this new book of Superintendent Dutton's. It is characteristic of the times. It is not exactly a pathfinder in a new field, but rather a summary of the best current sentiment, voicing a general trend of feeling on the part of our most useful and honored leaders in educational and social progress. The author's warm heart and clear brain have been employed for many years in solving successfully the problems of which he writes. He points out that the school is not wholly, nor even mainly, responsible for character and conduct, and that the other influential factors — heredity, the home, the church, the social and moral activity of the community — all these must be included and correlated in the great educational movements of the day.

Perhaps no portion of the book will be read with more general interest than the chapter on the work of the Brookline Education Society, a specific illustration of what can be accomplished by correlating the various factors enumerated above in harmonious effort on behalf of the children of the community. The society has sought with marked success "to bring all educational forces into working relations;" and "to invoke for educational ends the latent forces of the community — persons of means, leisure, or culture, who, if the way opens to them, are glad to contribute something to the public good by joining with others in public-spirited efforts for a better life, public and private."

Among the many subjects admirably treated by the author in their relation to social improvement may be mentioned: the kindergarten, nature study, the faultiness of old courses of study, and newer tendencies; the school as a form of social life, not merely a preparation;

the need of sympathy and insight rather than technical child-study; the great importance of individual attention and training; heredity, interest, apperception and correlation; special types of children, parental coöperation, and the specific obligations of the school toward the child.

The author is outspoken against arbitrary requirements of colleges which, in practice at least, are opposed to higher humanitarian aims. Secondary and even grammar schools are coerced into exactions which are both artificial and unhealthy. "The evils of this condition are vastly greater where girls come under its influence. Those aims in life which should be the center of their interest and thought are ignored, and girls are permitted to take courses made for men, to the detriment of health and other higher interests of life.

The chapters on "Education and the Church" and "Education as a Cure for Crime" merit a fullness of discussion impossible in a brief review. Here, and throughout the book, the author deals vigorously, though sympathetically, with questions of intense living interest. Many of his readers will not concur with him as to some matters of opinion and detail, all will agree, however, that he has given to current educational literature a timely and useful contribution.

HENRY R. CORBETT

THE UNIVERSITY OF CHICAGO

Plant Relations. Part I of Botany. By DR. JOHN M. COULTER. New York: D. Appleton & Co. 1899.

TEACHERS of botany in secondary schools will certainly read this book with unusual interest. Methods of teaching botany have changed so radically that in recent years there has been an absolute dearth of good books to supplement the work done in the laboratory and in the field. Several excellent elementary botanies have been published within the last year or two, but none that is so well adapted, both in content and manner of presentation, to the degree of mental development and previous experience of the majority of the students for whom it was written.

In this Part I, the plant is approached from the standpoint of its ecology, with an occasional development of its physiology when naturally suggested. Herein lies one of the strong points of the book. It presents those phases of the plant's life that are easily observed — the objective features that appeal most powerfully to the young and

untrained student—and by a systematic development of the most striking life relations gives a correct conception of the plant's place in nature.

Although there is no formal division of the book into parts, it naturally divides itself into two general topics.

The first, covering about 140 pages, is devoted to the development of the life relations of the several plant organs—both vegetative and reproductive—the various adaptations to meet their life necessities, the simple details of their structure, their functions, and the correlations of these functions with their life relations and structure.

The second, composing the remaining 110 pages, deals with the relations of the plant as a whole—the elements that enter into its struggle for existence, the processes of its nutrition, and the manner in which vegetation groups itself into societies as a result of the adjustment of the plant to the various demands of its environment.

As a whole, the book is a marvel of clearness and simplicity of expression, and that, too, without any sacrifice of scientific accuracy or any tedious circumlocution. The chapters on "Flowers and Insects" and "Nutrition" are especially noteworthy in this respect.

The illustrations form one of the remarkable features. They are very numerous, comprising fully 100 of the 255 pages; they are excellently done, almost without exception, and they are always in point. Those illustrative of plant societies will be found to be especially valuable, since they show many conditions that cannot be seen by any one class.

The book should be an eye-opener to those who have conceived the making of herbaria or the drawing of cross-sections to be the alpha and omega of botany work in the secondary school. The spirit of the new botany breathes from every page. Abundant work in the laboratory and field is intended to take the initiative in using this book, and it presupposes a teacher competent to interpret, to amplify, and to suggest, and one who has sufficient energy to prepare the proper material for class work, and to select for study in the field places that will enable the student to relate the facts observed in the laboratory to their place in nature. If used under these conditions, the book will give to the study of botany an educative value that it has never had, and at the same time will be an actual preparation for a further study of the subject than is contemplated in this half-year's course.

E. A. SCHULTZE

FORT WAYNE, IND.

Educational Aims and Educational Values. By Paul H. HANUS, Assistant Professor of the History and Art of Teaching, Harvard University. The Macmillan Company.

IN this book are collected articles by Professor Hanus which have appeared at various times in the *Educational Review* and in the SCHOOL REVIEW, and which discuss the fundamental principles of educational theory and the important problems of contemporary educational practice. This is the third of the trilogy of books appearing during the year which should be not only in the "working" library of every teacher who is interested in his profession, but which should be read by every layman who is at all interested in education and in its relation to social life and progress. The other books of the trilogy are *Educational Reforms*, by President Eliot, and *The Meaning of Education*, by Professor N. M. Butler.

These articles by Professor Hanus attracted attention at the various times of their publication and have doubtless been read by most of the readers of this journal, but they assume an entirely new and more forcible character when grouped in one book. There is a central, dominating thought which the author aptly describes as "a progressive attempt to disentangle from the contemporary educational confusion in both theory and practice our educational aims, and to examine these aims in the light of present and future needs." This central thought is never lost sight of and the first five chapters bear directly upon it as may be seen from their titles. "Educational Aims and Educational Values," is a chapter which ought to be read in connection with Herbert Spencer's famous chapter, which it resembles not only in the subject treated but also in the logical, convincing style of presentation. "A Recent Tendency in Secondary Education Examined" treats of the growing flexibility of courses of study and the introduction of electives. Here the author makes a strong plea for electives, basing his argument upon what he conceives is one of the most important duties of the teacher, viz., "of wisely using the course of study as a means of discovering the pupil and leading him to self-revelation." "Attempted Improvements in the Course of Study" is the title of the third chapter, and in this the whole range of elementary and secondary education is covered; this furnishes an excellent introduction for the fourth and fifth chapters in which the author defines the "Aim of the Modern Secondary School, and discusses the place of that school as a "Unifying Force in American Life."

These are strong, well reasoned, thoughtful chapters and constitute the strength of the book. The remaining chapters are interesting, but are overshadowed. The book is written in clear, forceful English; it is not the language of persuasion, but the language of conviction. Where it does not elicit hearty sympathy it arouses deep, earnest thought and compels clear and definite arguments in rebuttal. The winnowing has been well done, and we have a real and valuable contribution to educational literature from a man who is manifestly in touch with actual conditions in elementary, secondary, and university education. To those who are interested in the study of education and the work of training teachers this book will commend itself as a specially valuable text-book.

GEO. H. LOCKE

THE UNIVERSITY OF CHICAGO

Text-Book of Algebra for Schools and Colleges. By G. E. FISHER and I. J. SCHWATT. Philadelphia: Fisher & Schwatt, 1898.

THE text-book of Fisher and Schwatt is clearly designed to meet the needs of those who study algebra for mental discipline and to stimulate teachers to appreciate and to present to their pupils the logic involved in every process. It is a commendable effort in the line of a most hopeful reaction which is taking place against rote work in the teaching of preparatory mathematics.

The essential desideratum is to formulate the reasoning in the earlier topics in a sufficiently simple manner and to increase the frequency and rigor of the formal demonstrations in a degree suited to the mental growth and advancement of the pupils. Whether the authors have uniformly met this prime condition of excellence can only be determined by the test of class-room use. For the benefit of those who feel that too much space is given to this feature of the book, the proofs have been placed after the formulation and ample illustration of the principles, so that some or all of the demonstrations may be omitted, still retaining the usual rules and exercises for mechanical work.

Even such a use of this text would be better than to use a book containing a minimum of logic and reasoning, since some students would surely catch the spirit of the authors and be led on to appreciate algebra as a science as well as an art of computation.

The fullness of treatment, clearness of statement, and attention to

the minutest detail, cannot fail to be of the utmost value to the thoughtful student. It may, however, be feared that this high merit has carried the volume to such large proportions as to exclude it from general use in the high schools.

In the presentation of positive and negative numbers a theoretically historical development is followed which is contrary to actual experience, and so must appear artificial and arbitrary to the student. Namely, negative numbers are defined as numbers less than zero which were *invented* in order to extend subtraction to the case in which the subtrahend is larger than the minuend, and incidentally it turns out that positive and negative numbers tend to destroy each other when they are combined, whereas this latter property is the characteristic of many quantities already known to the student in arithmetic, and he looks to algebra not to invent them, but to show him how to use them. From this one defining property follow naturally and logically all other properties and applications of positive and negative numbers.

One mechanical fault is so glaring in contrast to the unusual excellence in other respects that its existence is a matter of surprise. This is the unwieldy, bungling, and exasperating system of cross-reference; for instance, chap. xiii, § 3, Art. 12 (III). Unless one refers constantly to the index, there is no way of discovering to what chapter and section any article belongs but to turn back page by page to the beginning of the chapter and then count the sections through to the desired article.

H. E. SLAUGHT

THE UNIVERSITY OF CHICAGO

The Physical Nature of the Child and how to Study it. By STUART H. ROWE. The Macmillan Company.

THE attractive binding, good paper, and clear print of this book, as well as its modest size, are certainly not calculated to frighten away intending readers. The author has produced a simple, interesting and practical discussion of a side of education that is constantly assuming greater importance, but can never assume an importance beyond its desert. The book brings together the most important conclusions of scientific investigators upon the different topics connected with the growth and development of the child, especially as affected by school work. All is presented in such a way that any reader having once begun must be interested and encouraged to go further. The work is

not a technical original contribution to science for the advanced student but rather an orderly presentation of facts already known to students in this field, but not well known to the educational public at large. Probably, the average teacher could read no better work upon school hygiene, that eminently neglected realm, than the book before us, and all books which serve the purpose of bringing school hygiene to its proper recognition deserve hearty commendation.

C. H. THURBER

THE COURSE OF STUDY

To the Editor of the School Review.

DEAR SIR: Apropos of the discussion regarding courses of study, now in active progress, the appended course may be of interest. The regulations attached to it are an integral part of the plan, and must be kept in mind in order to understand its workings. As thus limited, the optional principle may, in the opinion of the writer, be supported on the following grounds:

1. That an appeal to the assumed ability of school authorities to choose more wisely than the pupils, logically requires the establishment of a single iron-clad course for all pupils; a conclusion which no one, in these latter days, seems to have the temerity, or the logical consistency, to carry out in practice.

2. That the establishment of several inflexible courses, between which pupils are to choose, once for all, abandons completely the theory of benevolent despotism, and substitutes the optional principle in its most injurious and indefensible form: in that, namely, in which the youth of the pupil and the irrevocable nature of the decision combine to produce the maximum number of fatal mistakes, and consequently of ruined careers.

3. That the attempt to escape these consequences by allowing a change of courses and substitution of studies, as now generally practiced, leads to a condition of utter chaos; and that this result cannot be avoided so long as the value-in-exchange of the several studies, and the selection of those which are indispensable, depend upon nothing more permanent or tangible than the private opinion of the temporary principal.

4. That the only way to insure that each graduate, and each pupil, so far as he goes, shall have taken a consistent, well-rounded course, is, therefore, to authorize and at the same time to limit the substitution of studies, on a definite credit basis, in such a manner that whatever choice the pupil makes, he cannot construct for himself a scrappy, unrelated course.

How far the course here submitted meets these requirements, others must judge. In details, it is unquestionably open to criticism. As to the principle involved, however, I am personally entirely convinced, and I should be willing to surrender it only on seeing a clear-cut proof that there is a logical stopping place between a single unvarying course and the elective system.

The course has now been in operation a year and a half, and no one connected with the school would dream of going back to the plan of multiple courses. The pupils know exactly where they stand, and are not tempted to attribute their misfortunes to the caprice of the principal; the task of administration has been greatly simplified, and now that the pupils are at liberty

GENERAL COURSE OF STUDY

	First half year	Per week	Second half year	Per week
Ninth Grade	REQUIRED		REQUIRED	
	Grammar, composition, and classics	5	Grammar, composition, and classics	5
	General history: oriental and Greek	3	General history: Roman	3
	Algebra	5	Algebra	5
	CHOOSE ONE		CHOOSE ONE	
	Physiology	5	Physical geography	5
	Latin IX	5	Latin IX	5
	Bookkeeping	5	Bookkeeping	5
	EXTRA		EXTRA	
	Drawing (1 credit)	2	Drawing (1 credit)	2
	Music (1 credit)	2	Music (1 credit)	2
Tenth Grade	REQUIRED		REQUIRED	
	Rhetoric, Composition, and classics	5	Rhetoric, composition, and classics	5
	General history: mediæval	3	General history: modern	3
	CHOOSE TWO		CHOOSE TWO	
	Algebra	5	Arithmetic	5
	Biology	5	Botany	5
	Latin X	5	Latin X	5
	Business practice and stenography	5	Business practice and stenography	5
	EXTRA		EXTRA	
	Drawing (1 credit)	2	Drawing (1 credit)	2
	Music (1 credit)	3	Music (1 credit)	2
Eleventh Grade	REQUIRED		REQUIRED	
	English literature, composition, and classics	5	English literature, composition, and classics	5
	Plane geometry	4	Plane geometry	4
	CHOOSE TWO		CHOOSE TWO	
	English history	5	English history	5
	Chemistry	5	Chemistry	5
	Latin XI	5	Latin XI	5
	Greek XI	5	Greek XI	5
	German XI or French XI	5	German XI or French XI	5
	Business practice and stenography	5	Business practice and stenography	5
Twelfth Grade	CHOOSE FOUR		CHOOSE FOUR	
	English masterpieces	5	English masterpieces	5
	U. S. history and economics	5	Civics	5
	Solid geometry	5	Trigonometry	5
	Physics	5	Physics	5
	Latin XII	5	Latin XII	5
	Greek XII	5	Greek XII	5
	German XII or French XII	5	German XII or French XII	5
	Stenography and commercial law	5	Stenography and commercial law	5

to follow the bent of their talents, the classes, especially in the upper grades, are no longer weighted down with dead timber.

EDWARD VAN DYKE ROBINSON[1]

ROCK ISLAND HIGH SCHOOL

CHOICE OF STUDIES

Pupils may choose any branch offered in the grade in which they are classified, subject to the restrictions indicated in the course of study.

Required work in a lower grade must always be taken in preference to any branches in a higher grade. This means the required amount as well as the required branches.

Special permission from the faculty is requisite to take any study outside of the pupil's grade, to drop a study at any time during the year, or to take any extra study except music or drawing.

Pupils who desire to graduate or to enter college after graduation, must conform to the requirements given for graduation and college preparation, respectively.

Studies will not be given as a rule, unless chosen by six or more pupils.

PREPARATION FOR COLLEGE

While the chief object of the high school is the preparation of pupils for life rather than for college, the course, nevertheless, includes all ordinary college-preparatory studies, and it is therefore possible, by judicious selection, to prepare for any of the great universities. But the studies must be chosen with this end constantly in view. A mistake in any term, from the first to the last, would throw the pupil back a year.

For the guidance of pupils, several university-preparatory courses, selected from the general course, are given below. Graduates of this school who have completed any one of these courses, and whose average standing throughout the high school has been 85 per cent. or higher, are entitled to a university certificate. This will admit the holder to any one of several universities without examination.

In the scientific course, pupils who take a foreign language in the third year must continue it through the fourth.

GRADING

An average of 75 on each semester's work in each subject is required for passing. A failure on any semester's work must be made up before credit will be given for that subject. This must be done in the regular class, unless the faculty agree that a special examination be allowed. If any pupil fails

[1] Since writing this communication Dr. Robinson has accepted the principalship of the St Paul (Minn.) High School.

COURSES PREPARATORY FOR THE UNIVERSITY

CLASSICAL	LATIN	SCIENTIFIC
NINTH GRADE		
Grammar, composition and classics ..... 5 General history ..... 3 Algebra ..... 5 Latin 5	Same as classical	Same as classical, with drawing added
TENTH GRADE		
Rhetoric, composition and classics ..... 5 General history ..... 3 Algebra-botany ..... 5 Latin 5	Same as classical	Same as classical, with drawing added
ELEVENTH GRADE		
Literature, composition and classics ..... 5 Plane geometry ..... 4 Latin ..... 5 Greek 5	Literature, composition and classics .. 5 Plane geometry ..... 4 Latin ..... 5 German or French ... 5	Literature, composition and classics ..... 5 Plane geometry ..... 4 Chemistry ..... 5 Latin, German, French or English history 5
TWELFTH GRADE		
Geometry { civics / trig. } .. 5 Physics ..... 5 Latin ..... 5 Greek 5	Geometry { civics / trig. } 5 Physics ..... 5 Latin ..... 5 German or French .. 5	History—civics ..... 5 Geometry-trigonometry .. 5 Physics ..... 5 Latin, German, French or English masterpieces .. 5

to pass this examination a second shall not be granted. No pupil shall be passed on the strength of recitation work under private tutors.

All pupils who fall behind their grade in a year's work, that is, either two subjects in one semester, or one subject extending through two semesters, are classified and seated with the next lower grade. But for classification as seniors, 110 credits, or in other words, absolutely clear records for the first three years, are requisite; that is, failure in any study for any recorded period shall debar pupils from the senior class until the work is made up.

CREDIT

The unit of credit is one exercise a week for a half year. A semester's work in any study therefore entitles the pupil to as many credits as there are recitations per week, these being indicated by the numbers at the right of the studies. Laboratory hours are not counted.

GRADUATION

The requirements for graduation are :

I. That the pupil shall have 150 credits.

II. That he shall have completed the following minimum of work in each class of subjects :

1. English, 30 credits, as specified in the course of study.
2. History, 12 credits, as specified in the course of study.
3. Mathematics, 18 credits. The branches specified in the course of study are recommended.
4. Science, 15 credits. Two or more sciences must be completed.
5. Languages, 20 credits (2 years) in one language.

NOTES

THE Saxon Minister of Education, has, on the ground of health, forbidden girls attending the public schools to wear corsets.

THE New England Association of Colleges and Preparatory Schools meets at Harvard University, October 13 and 14.

THE Association of Colleges and Preparatory Schools of the Middle States and Maryland meets on the Friday and Saturday following Thanksgiving Day at the State Normal School, Trenton, N. J.

HENRY HOLT AND COMPANY have published a handy edition in paper covers of *Le Gendre de M. Poirier*, par Emile Augier et Jules Sandeau, Edited with Introduction and Notes by Stuart Symington, Ph.D., Professor of the Romance Languages in Amherst College.

ANOTHER easy gate to geometry is the *Primer of Geometry* by James Sutherland (Longmans). The book is simple and full of illustrations. These illustrations are plain and clear, though not particularly artistic. The book gives one the impression of being rather too much "written down" to children.

THE MACMILLAN COMPANY have issued an attractive edition of *Don Quixote*, edited by Clifton Johnson, for school and home reading. The ten illustrations by George Cruikshank add greatly to the interest of the book. Print and binding are good, and the total result is all that can be desired in a handy edition of this classic.

SOMEWHAT out of the usual run of modern language texts is *Aus Deutchen Meisterwerken*, erzählt von Sigmon M. Stern. The book is provided with an introduction and good vocabulary, but no notes. The introduction, however, takes the place of notes to a large extent. The book is handsomely printed and published.

The Story of the Great Republic, by H. A. Guerber (American Book Company) is intended as an historical reader, as an elementary text-book, or as a supplementary reader. Probably it will be found most available in the latter capacity, though as a text-book it may be found available in some schools. The style of the book is easy and attractive.

Précis de l'Histoire de France, par Alcée Fortier (The Macmillan Company) contains in brief form the whole history of France. The French style is clear and the book is easy reading. If pupils can be prevailed upon to

use an historical work rather than a work of literature for class purposes, this book will be found one of the most available of any text-books of that nature in French.

AN interesting new text-book in modern languages for somewhat advanced students is *La Retraite de Moscou*, par Le Comte de Segur, with introduction and notes by O. B. Super (Holt). It contains a brief historical introduction and a briefer bibliographical sketch of the author, with a few judicious notes at the end. Professor Super's careful and satisfactory work as an editor is well known.

DR. A. E. WINSHIP begins a series of about twelve articles in the *Journal of Education*, September 14, upon the study of the contrast between "The Jukes," as studied by R. L. Dugdale, of the New York Prison Commission, and his own study of the family of Jonathan Edwards. Mr. Dugdale studied 1200 of the Jukes ; Dr. Winship has studied 1400 of the family of Jonathan Edwards.

FOR the genuineness of the following "howler" we can vouch. It is copied verbatim from the Divinity paper of a pupil in one of the nine public schools. "Healing the Limb man, casting the unclean spirit of a man into a swine, healing the Leopard, healing Jairus's daughter, raising Talitha Gumei from death." According to the same youth, the lady who came to hear the wisdom of Solomon was queen Beer Sheba.—*London Journal of Education.*

THE city fathers of Dresden have decided not to accept proposals for the construction of school baths. The vice chairman is reported to have said that one finds the strongest men where baths are unknown. The London School Board is, at least, in advance of Dresden on this question of baths for children. In some things we are ahead even of Germany.—*London Journal of Education.*

IN the *School Bulletin* Mr. C. W. Bardeen has been publishing regularly for several years past a series of studies on *Author's Birthdays.* These he is now collecting in book form. The second series contains excercises for the celebration of the birthdays of Bayard Taylor, Lowell, Howells, Motley, Emerson, Saxe, Thoreau, E. S. Phelps-Ward, Parkman, Cable, Aldrich, J. C. Harris. Many teachers will find these books useful helps.

PROFESSOR HEMPL, of the University of Michigan, in his *Easiest German Reading for Learners Young or Old*, (Ginn & Company) has adopted the novel device of translating into idiomatic German well-known English Nursery Rhymes. Upon these rhymes conversational exercises are based. It cannot fail to be comforting to the learner on opening this book to find in the first sentence, "Dies ist das Haus, das Hans baute," a very old friend even though in a grotesque suit of clothes.

Minna von Barnhelm oder Das Soldatenglück; Von Gotthold Lessing with Introduction and Notes by A. B. Nichols, of Harvard University, (Henry Holt & Company) is a good edition of a school classic. The introduction is interesting and the illustrations, including reproductions of twelve etchings by Chodowiecki and a portrait of Lessing add much to the attractiveness of the volume.

Corn Plants, Their Uses and Ways of Life, by Fredrick Leroy Sargent (Houghton, Mifflin & Co.), is an interesting little book, with a number of attractive illustrations and interesting experiments. It is not a text-book in botany, but as a supplementary reader in grammar grades or even in high-school grades it ought to find a useful place. It is attractively written and artistically published.

A GOOD elementary reading book is *Cinq Histoires* edited by Baptiste Méras and Sigmon M. Stern. The five stories are Claretie's Boum-Boum, Dumas' Entrée Dans Le Monde, Maupassant's La Parure, Daudet's La Chevre de M. Seguin, and de Maistre's Les Prisonniers du Caucase. There is a good vocabulary, an introduction containing biographical notes, and a section "To Teachers" which abounds more in figurative writing that in pedagogical principles.

PROFESSOR JAMES TAFT HATFIELD, Northwestern University, has brought out a handsome new edition of Goethe's *Hermann und Dorothea* in Macmillan's Series of German Classics, which is being issued under the general editorship of Professor W. T. Hewett, of Cornell University. Professor Hatfield has access to the extensive material collected by Professor Hewett, as well as to the Schneider collection of original editions of the German classics. The text of the poem is believed to be particularly free from errors.

"JEAN PAUL" has a unique place in German literature. If known at all in this country it is mainly as the author of that curious work on education, *The Levana.*" The little work which has recently appeared, *Selections from the Works of Jean Paul Friedrich Richter,* edited by George Stuart Collins (American Book Company) ought to serve as a charming and stimulating introduction for many American students to the works of one who has delighted successive generations in the fatherland.

TEACHERS who wish to carry on laboratory work in human physiology will find a most interesting and valuable help called *Laboratory Exercises in Anatomy and Physiology,* by James Edward Peabody (Henry Holt & Co.). The work is arranged as the usual form of laboratory guide with interleaved blank pages for notes. The experiments seem to be simple and practicable for secondary schools. There is some question as to the value of laboratory work in physiology in secondary schools, but those who are convinced of its value will do well to give careful attention to this little book.

AN excellent beginning for the study of logic is furnished by *An Introductory Logic*, by James Edward Creighton (The Macmillan Company). The book is comprehensive in its scope and possesses those qualities of clearness and thoroughness which the author is well known to possess. As a text-book or as a work for private reading the book will be very serviceable. It is doubtful whether any book can make the subject of logic really easy, but Professor Creighton's work goes far in that direction.

Laboratory Course in Wood Turning, by Michael Joseph Golden (Harper & Brothers), gives a series of twelve exercises in woodwork, every step being fully illustrated by diagrams and cuts as a guide for school work. The introduction contains an account of the tools necessary and the manner in which to use them and care for them, with general directions that will be of service. The statements are clear and brief, and the book seems admirably adapted for its purpose.

IN *Seed Dispersal*, by W. J. Beal (Ginn & Company), we have an interesting bit of ecology, though the author has not ventured to use that term. The book is interesting reading. How it would work into the school course is a question that does not suggest an obvious answer. Many things are done now in the name of supplementary reading, and perhaps the adoption of this book may be one of them. Under whatever guise it meets the pupils, it is likely to do them good.

MR. OSCAR PHELPS AUSTIN, whose *Uncle Sam's Secrets* met with such favorable reception, has written another work, *Uncle Sam's Soldiers* (Appleton's Home-Reading Series). The book describes the United States Army under the guise of a story. The descriptions are full and clear, the illustrations are numerous and excellent, and the whole make-up of the book is calculated to render its reading an agreeable pastime to the class for which it is intended.

A PRACTICAL book is *Advanced Lessons in Human Physiology and Hygiene*, by Winfred E. Baldwin (Werner School Book Company). The book is fully illustrated and does not abound in horrible examples. Alcohol and tobacco are, of course, treated in such a way as to meet the requirements of the laws relating to such study, and this treatment seems to be on the whole rather reasonable and sensible. This book is worthy of careful consideration in making up lists of text-books.

IN the *History for Young Readers Series* (D. Appleton & Company) Mr. Frederick A. Ober presents us with a charming little account of *Spain*, beginning with Ancient Iberia and ending with the signing of the Treaty of Paris; all this in less than 300 small pages. Mr. Ober is a clear and interesting writer and has produced a most attractive book. Young readers are apt to

be more interested in Spain now than a few years ago, and this book of Mr. Ober's will meet this new interest more than half way.

How to Name the Birds, by H. E. Parkhurst (Chas. Scribner's Sons) is a new departure in bird classification intended to aid the field ornithologist in determining an unknown species. It is a handy guide to classification, and its use is made easier by two full page colored plates showing the distinct areas of the bird's body, and a third full page plate showing the various forms of tail. The little book is just of the size to slip in the pocket and admirably adapted for enabling one to answer Emerson's question, "And hast thou named all the birds without a gun."

DR. GEORGE W. FITZ, of Harvard University, has revised a new edition of Martin's *Human Body*. The revision was undertaken with the idea of bringing the book into accord with later developments of Physiology by simplifying some parts and expanding others, and enriching the text with the addition of illustrations. Every effort has been made to avoid injuring those features of Professor Martin's work which have made the book so favorably known. In its revised form, with the added prestige of Dr. Fitz's name, the book will doubtless enjoy an extended field of usefulness.

THOSE who are acquainted with the charming little buckram edition of *On Rend l'Argent*, by Francois Coppée, edited by Thomas Bertram Bronson, will be glad to note that Henry Holt & Co. have just issued *Scènes de Voyages*, by Victor Hugo, in the same form, prepared by the same editor. These are quite out of the ordinary run of school text-books, which are often distinguished by a somewhat forbidding exterior. They are somewhat elegantly gotten up, in handy size for the general reader to slip in his pocket, while at the same time the price is not prohibitive.

STILL another bird book; this time, *Birds of the United States*, by Austin C. Apgar (American Book Company). This is a larger and more ambitious undertaking than those which have been mentioned recently in these pages. It contains full descriptions of the birds of North America, two series of keys, one for identifying prepared specimens, and the other for identifying living birds, map showing the territory covered by the birds described in the book, and very many excellent plates which will serve a useful purpose in study, and add greatly to the attractiveness of the volume.

THE world is re-discovering birds. At least, such is the impression one gets from the number of books about birds continually finding their way to an editor's table. One of the most attractive of them all is *Bird-World, a Bird book for Children*, by J. H. Stickney (Ginn & Company). This is not a scientific book, though it is not unscientific. It is a little difficult to describe exactly the point of view taken, but there is no question as to the interest and variety of the contents. The illustrations are beautiful, several of them, and

include eight which are finely colored. No one could make a mistake by putting this book into the hands of any child, or into any school library.

THERE ought to be many users for the edition of *Cyrano de Bergerac*, which has been edited by Professor Kuhns, and published by Henry Holt & Co. Certainly, for timeliness in text-book making, nothing could exceed this enterprise. It is needless to say that the editorial work is well done, but it is by no means overdone, the introduction aud notes taking altogether not more than a quarter of the book. For advanced classes in French, *Cyrano* will furnish a welcome variety to the old standbys, and ought, therefore, to he welcomed by both teachers and students.

HOUGHTON, MIFFLIN & CO., have added Carl Schurz's Essay on Lincoln, to the Riverside Literature series, as No. 133. As is well known, Mr. Schurz joined himself with Lincoln in 1858 in the latter's memorable campaign against Douglas, and afterwards in Lincoln's presidency served under him as minister to Spain. Through these associations he gained a personal knowledge of Lincoln's character, from which he has drawn in the preparation of this remarkable essay. Teachers who are seeking reading matter of a sound patriotic character can do no better than to examine this interesting little book.

Philip's Experiments; or Physical Science at Home, by John Trowbridge (D. Appleton & Co.), presents in the form of a series of lectures the methods supposed to have been adopted by the writer in instructing his son Philip at home in the elements of science. The style of the work is therefore narrative and informal. The book is designed to combat the notion held by many boys that they cannot acquire knowledge in any subject outside of schools by showing the interesting results that can be obtained by a few moments devoted each day at home to simple investigations. A boy with a taste for science would find this book interesting reading.

A Dictionary of University Degrees, by Flavel S. Thomas (C. W. Bardeen), has some interest as a compilation of all the curiosities in the way of degree giving that the author has been able to bring together. The explanations of the different degrees are brief and not always accurate; nor are the forms of abbreviations given always correct. The book is evidently a tentative publication, as every other page is left blank for the reader's corrections, but since the author had charge of this branch of the work in the *Standard Dictionary*, it would seem that he should either have produced a more finished treatise on the subject, or withstood the temptation to appear in print until he had completed his investigations.

THE need of a book on the art of questioning which should cover the subject adequately and afford sufficient preparation for the examination of training classes has long been manifest. The little treatises of Fitch and

Young, excellent in their way, have not been comprehensive enough. Mr. C. W. Bardeen with his usual enterprise has endeavored to supply this need in *A Manual of the Art of Questioning for Training Classes*, compiled from various works and especially from those of Joseph Landon, F. G. S. The book will be interesting and suggestive to teachers, and if it do no more than draw attention to the fact that questioning is an art worthy of study and careful practice, it will do good service.

A VALUABLE book of reference for those interested in higher education is *A Handbook of British, Continental, and Canadian Universities*, by Isabel Maddison (The Macmillan Company). The first edition of the work was undertaken in 1896, for the purpose of giving information as to the admission of women in different foreign universities. This purpose is not lost sight of in the present edition, but the material contained is quite as available for men as women. Nowhere else in English is so much interesting and valuable information in regard to the organization, lectures and management of foreign universities to be found as is contained in the pages of this useful little book.

INTEREST in the flag of the nation has sometimes sunk almost to the level of subconsciousness, but it has been very intense and conscious for the past year or more. The appearance, therefore, of *Our Country's Flag*, by Edward S. Holden (D. Appleton & Co.), was at an opportune time. The whole history of the development of the flag is given, and all the special flags used by the different branches of the navy and army are described as well as the flags of the chief foreign nations. The book is handsomely illustrated, not only with engravings, but with several full-page colored plates, which are well executed and attractive. The frontispiece is a beautiful plate of the standard flag of the United States.

The Art of Teaching, by David Salmon (Longmans, Green & Co.), is a distinctly interesting book. The field covered is that generally defined by the practice of teaching, and the usual subjects are discussed. The book is full of interesting historical allusions, the history of method not having been overlooked, and, more than that, different methods are usually fully and fairly presented. The treatment, therefore, is, to a certain extent, both historical and comparative. Those interested in the development of method will find much valuable material here. The author has avoided the usual pitfalls into which writers on method fall, and has produced a work which may be regarded as a distinct contribution to the literature on this subject.

The Dawn of Reason, by Dr. James Weir, Jr. (The Macmillan Company), is a most interesting discussion of mental traits in the lower animals. The book can be read with interest by those who are not technically engaged in scientific research, while scientists will find much that is suggestive and val-

uable. The various topics discussed are illustrated with numerous examples of animal instinct and reason, and these examples themselves make attractive reading. The book is, indeed, largely made up of illustrations from animal life, tending to show the possession by animals of some degree of reasoning power. The book possesses both scientific value and sweet readableness.

RECENT publications in Heath's Modern Language Series are: *Eingeschneit, Eine Studentengeschichte* von Emil Frommel, *Stille Wasser, Erzählungen von Anna von Krane, Hans Hoffman and Ernst von Wildenbruch*, both with introduction, notes and vocabulary by Dr. Wilhelm Bernhardt; *Aus dem Jahrhundert des grossen Krieges* von Gustav Freytag, abridged and edited by Lewis Addison Rhoades; *Histoire de Gil Blas De Santillane* par Alain-René Lesage, edited with introduction and notes, but no vocabulary, by Adolphe Cohn and Robert Sanderson; and *La Tulipe Noire* par Alexandre Dumas, edited with notes, but no vocabulary, by C. Fontaine. The absence of vocabulary in texts intended for advanced students is of less consequence, and we note with pleasure the presence of vocabulary in books intended for beginners.

AMONG the latest issues of the International Educational Series is *Letters to a Mother on the Philosophy of Froebel*, by Susan E. Blow (D. Appleton & Co). The more students of education study Froebel the more are his contributions to the development of educational theory and practice understood and appreciated. He is a man who bears acquaintance. Miss Blow's standing and influence as an exponent of Froebelian principles are too well known to need comment. This book is not Froebel, but it is an attempt to explain in language addressed to the general public the philosophy of Froebel. Froebel is, no doubt, one of those authors who needs a mediator between himself and the general public, but after all the best thing is to study the man himself rather than about him, and it is to be hoped that this book will stimulate many to turn to Froebel's own writings in the search for his truth.

Through Boyhood to Manhood: A Plea for Ideals, by Ennis Richmond (Longmans, Green & Co.), is intended as an appeal to the Masters of Public Schools in England, and treats exclusively of English conditions. But the perils to which boyhood is exposed in passing into manhood are not peculiar to England or any land, and leaving out the arguments which apply to public school life in England, the rest of the material in this book is of general interest and value. The book is characterized by plain speaking upon topics which are generally avoided, or treated with indirectness and innuendo. The author is an earnest person who has risen from sentiment to sense, and who speaks of things as they are to the end that they may the better become what they ought to be. Shutting our eyes to certain disagreeable facts is not an effective way of remedying them. The book is wholesome and helpful reading for parents and schoolmasters.

GEOLOGICAL teaching in America owes a large debt to Professor James D. Dana, and it is fortunate that so sympathetic and skillful a hand as that of Professor William North Rice has had the task of revising his *Text-Book of Geology*, which in its fifth edition has been published by the American Book Company. The revision has been somewhat thorough. The zoölogical and botanical classifications used in the former edition were judged to be obsolete. They have been replaced so far as practicable by the classifications in the majority of recent manuals on zoölogy and botany. The theory of evolution has received fuller recognition than in the book as it was left after the final revision by Professor Dana. The revision is calculated to keep before students in schools and colleges the name and the scientific work of one of the greatest of our American geologists.

MR. C. W. BARDEEN is an educational publisher who has had the courage to bring out in translations and reprints a number of works that would otherwise be inaccessible to contemporary readers in this country. His latest venture in this direction is *Letters on Early Education*, addressed to J. P. Greaves, Esq., by Pestalozzi. These letters were translated from the German manuscript, and the manuscript itself has probably been lost. The present work is a reprint of the London edition of 1827. The translation is, on the whole, better than the results of most attempts to clarify and anglicize Pestalozzi's rather muddy German. It is the last and, in some respects, the fullest exposition of Pestalozzi's views, and its value is especially great now when so much effort is making to enlist the coöperation of mothers in the early education of children.

Work and Play in Girls' Schools (Longmans, Green & Co.) is the somewhat enigmatical title of an interesting treatise on education in general as specially applied to and adapted for girls. It is quite refreshing to find the education of the eternally feminine thus given a whole book by itself. The book is the work of several authors who have divided up the different departments between them. The whole constitutes something like a treatise on the theory and practice of education. The book is written from the English standpoint, and is adapted to schools specially for girls; yet it does not bristle at all with points of contrast between what is said and what might be said on the education of boys. For teachers in young ladies' seminaries in this country the book would undoubtedly have value, but, as our secondary schools are very generally coeducational, special methods for girls cannot be employed. Perhaps it would be as well if they might be. The author of the chapter on "The Cultivation of the Body" makes this interesting recommendation: "Dancing is also a capital form of exercise, provided it is not pursued as is sometimes the case, to the point of physical exhaustion. The art of fencing is also well worth acquiring. Also bicycle evolutions to music, and even roller skating." We quote this without daring to comment.

NEW PUBLICATIONS

EDUCATION, PSYCHOLOGY, PHILOSOPHY

Common Sense in Education and Teaching. An introduction to practice. By P. A. Barnett. Size 7½ x 5½ in.; pp. 321. Longmans, Green & Co.

Montaigne — The Education of Children. Selected, translated, and annotated by L. E. Rector, Ph.D. Size 7½ x 5 in.; pp. xxiii + 191. Appleton's.

Port Royal Education. A sketch of its history with extracts from its leading authors. Edited by Felix Cadet, French Inspector General of Public Instruction. Size 7 x 5 in.; pp. 406. Price $1.50. C. W. Bardeen, Syracuse, N. Y.

University of California Sudies. Notes on the Development of a Child. Parts III and IV. By Milicent Washburn Shinn, Ph.D. Magazine form. Price 70 cents. Berkeley: Published by the University.

Illinois State Department of Public Instruction. Report of the Superintendent of the State School for the Deaf to the Superintendent of Public Instruction. For the Biennial Period ending July 1, 1898. Pamphlet; 32 pages.

Method in Education. A Text-book for Teachers. By Ruric N. Roark, Ph.D., Dean of the Department of Pedagogy, State College of Kentucky, Author of "Psychology in Education." Size 7½ x 5½ in.; pp. 348. American Book Company.

Practical Physical Exercises for Public and Private Schools. Arranged by Louis Lepper, Director of Physical Culture, Terre Haute Public Schools, and Wm. H. Wiley, Superintendent Terre Haute Public Schools. Fully illustrated. Size 7 x 5 in.; pp. 120. Price 80 cents. The Inland Publishing Company, Terre Haute, Ind.

The Effects of Mind on Body as Evidenced by Faith Cures. By Henry H. Goddard. A dissertation submitted to the faculty of Clark University, Worcester, Mass., in partial fulfillment of the requirements for the degree of Doctor of Philosophy, and accepted on the recommendation of G. Stanley Hall. Pamphlet: 72 pages. Worcester, Mass.

ENGLISH LANGUAGE AND LITERATURE

Lessons in Language and Grammar. Book II. By Horace S. Tarbell, LL.D., Superintendent of Schools, Providence, R. I., and Martha Tarbell, Ph.D. Size 7½ x 5 in.; pp. 331. Price 70 cents. Ginn & Co.

George Eliot's Silas Marner. The Weaver of Raveloe, with an Introduction by George Armstrong Wauchope, M.A., Ph.D., Associate Professor of English in South Carolina College. Size 6½ x 4½ in.; pp. xxviii + 259. Price 40 cents. D. C. Heath & Co.

GREEK AND LATIN LANGUAGES AND LITERATURES

A First Greek Book. With references to the grammars of Hadley-Allen and Goodwin. By L. L. Forman, Ph.D., Instructor in Greek in Cornell University. Size 7½ x 5 in.; pp. vii + 160. Harper & Bros.

MODERN FOREIGN LANGUAGES AND LITERATURES

Selected Letters of Madame de Sévigné. By L. C. Syms. Size 7 x 5 in.; pp. 123. Price 40 cents. American Book Company.

Heine's Prose. With Introduction and Notes by Albert B. Faust, Ph.D., Associate Professor of German in Wesleyan University. Size 7 x 5 in.; pp. li + 341. The Macmillan Company.

Introductory French Prose Composition. By Victor E. François, Instructor in French in the University of Michigan. Size 7 x 5 in.; pp. 94. Price 25 cents. American Book Company.

Selections from Edmund and Jules de Goncourt. By Arnold Guyot Cameron, A.M., Ph.D., Professor of French in the John C. Green School of Science of Princeton University. Size 7½ x 5 in.; pp. 352. Price $1.25. American Book Company.

German Composition based on Humorous Stories. By Carla Wenckebach, Professor of German in Wellesley College. Size 7½ x 5 in.; pp. 282. Price $1. Henry Holt & Co.

Benjamine. By Charles Deslys. Edited with grammatical and explanatory notes and a comprehensive vocabulary by F. Julien, Officier de l'Académie (Univ. Gallic). Size 7½ x 5 in.; pp. viii + 115. Longmans, Green & Co.

Legouvé et Labiche's La Cigale chez les Fourmis. Comédie en une acte. By Thomas J. Farrar, M.A., Instructor in the Washington and Lee University. Size 7 x 5 in.; pp. 56. Price 25 cents. American Book Company.

El Si De Las Ninas. A comedy in three acts by Leandro Fernandez Moratin. Edited with a biographical notice, explanatory notes, and a Spanish-English vocabulary by Eduardo Tolra Y Fornes, Professor Normal (University of Barcelona). Size 7½ x 5 in.; pp. vi + 111. Price 50 cents. Appleton's.

El Cautivo. An episode from Don Quixote. Edited with an introduction, grammatical and explanatory notes, and a Spanish-English vocabulary by Eduardo Tolra Y Fornes, Professor Normal (University of Barcelona). Size 7½ x 5 in.; pp. viii + 121. Price 50 cents. Appleton's.

HISTORY, POLITICS, ECONOMICS

The Elements of Finance, including the Monetary System of the United States. By Winthrop More Daniels, M.A., Professor of Political Economy in Princeton University. Size 7½ x 5 in.; pp. 383. Price $1.50. Henry Holt & Co.

SCIENCE

Inorganic Chemical Preparations. By Felix Lengfeld, Assistant Professor of Inorganic Chemistry in the University of Chicago. Size 7 x 5 in.; pp. xvii + 55.

Elementary Studies in Chemistry. By Joseph Torrey, Jr., Instructor in Harvard University. Size 7½ x 5 in.; pp. viii + 487. Price $1.25. Henry Holt & Co.

The Teaching Botanist. A manual of information upon botanical instruction, together with outlines and directions for a comprehensive elementary course. By William F. Ganong, Ph.D., Professor of Botany in Smith College. Size 7¾ x 5¾ in.; pp. xi + 270. Price $1.10. The Macmillan Company.

Insects, Their Structure and Life. A Primer of Entomology. By George H. Carpenter, B.Sc. London Associate of King's College and Fellow of the Entomological Society, Assistant Naturalist in the Science and Art Museum, Dublin, Consulting Entomologist to the Royal Dublin Society. Size 7½ x 5½ in.; pp. xi + 404. Price $1.75. The Macmillan Company.

MATHEMATICS

Advanced Arithmetic. By William W. Speer, District Superintendent of Schools, Chicago. Size 7 x 5 in.; pp. xx + 261. Price 60 cents. Ginn & Co.

Stereoscopic Views of Solid Geometry Figures. With references to Wells' Essentials of Solid Geometry. Price 60 cents. D. C. Heath & Co.

New Higher Algebra. By Webster Wells, S.B., Professor of Mathematics in the Massachusetts Institute of Technology. Size 7½ x 5½ in.; pp. viii + 446. Price $1.32. D. C. Heath & Co.

An Elementary Arithmetic, Oral and Written. By Frank H. Hall, author of the Werner Arithmetics, The Arithmetic Readers, etc. Size 7 x 5 in.; pp. 248. Werner School Book Company.

A Complete Arithmetic, Oral and Written. By Frank H. Hall, author of the Werner Arithmetics, The Arithmetic Readers, etc. Size 7 x 5 in.; pp. 446. Werner School Book Company.